DEDICATED MICROS

# SD Advanced

## Installation and Operation Guide

NetVu CONNECTED

SD ADVANCED

# Contents

Introduction ..... 3
Features ..... 4
Important Safeguards ..... 6
Installing the Unit ..... 8
Configuring the Unit ..... 18
Remote Control ..... 20
Main Menu ..... 22
Navigating The Configuration Menus ..... 23
System Settings ..... 26
Display Settings ..... 48
Camera Settings ..... 59
Record Settings ..... 67
Alarm Settings ..... 84
Network Settings ..... 103
Features & Text ..... 119
Oracle Dome Configuration ..... 129
Unit Operation ..... 143
Appendix A ..... 173
Appendix B ..... 174
Appendix C ..... 176
Appendix D ..... 177
Appendix E ..... 178
Appendix F ..... 179
Appendix G ..... 180

Whilst every attempt is made to ensure these manuals are accurate and current, Dedicated Micros reserve the right to alter or modify the specification of the machine described herein without prejudice.



Dedicated Micros ©2010

# Introduction

## What is the…

## SD Advanced ?

*A comprehensive digital recording solution, the SD Advanced is a stand-alone high performance recording system offering reliable, networked, scalable CCTV at an affordable price.*

*Its size and design make it the ideal desktop solution and perfect for installations were high record rates and network capabilities are required.*

*Dedicated Micros renowned* ***Multi****Mode record feature enables an operator to set different recording rates, resolution and compression formats across scheduled, normal and alarm modes for each individual camera. Offering JPEG, MPEG-4 or H264 recording, the SD Advanced provides the user with both high quality video images and minimum storage consumption.*

*Available with 8, 16 or 32 analog camera inputs, all offering telemetry control, the SD Advanced has built in Alarm functionality and onboard Activity detection software.*

*To give operators maximum viewing flexibility, the unit can be configured to contain a mixture of spot or main monitor outputs. Camera channels can be viewed in single or multi-screen mode on a local monitor or remotely over an IP connection.*

*The accompanying Infra-Red (IR) Remote Control has a colour coded 'Softkey' interface with configuration menus common to both local monitor and web pages, making for easy set-up and operation. The front panel interface also allows for easy operation when viewing on a local monitor.*

*The SD Advanced includes as standard internal storage with an integrated CD-R/DVD-R Re-Writer and USB ports / eSATA connection for external video archiving.*

*The unit also offers integrated text support, allowing users to connect with cash registers in retail applications to monitor Point Of Sale (POS) locations. Capturing and associating video with the relevant text information allows the user to search video footage by time, event, and text data to provide evidence of fraud or to aid identification of regular offenders.*

*Among the many other features included as standard on the SD Advanced are; multiway display and remote monitoring using NetVu ObserVer (using DM's unique TransCoding capabilities to provide fluent live and replay images).*

*With telemetry control of up to 16 cameras (including coax telemetry), control of dome cameras, I.P camera support , audio recording, activity detection plus many more exciting features; the SD Advanced is the ideal product when high performance video recording and transmission is required at an affordable cost.*

*For further information, please visit the website:*

*www.dedicatedmicros.com*

*or contact customer services in your region.*



Dedicated Micros ©2010

# Features

- 8, 16 or 32 analog camera input options
- Telemetry support (Coax & Serial)
- All DVR functions fully supported by Keyboard/IR Remote Control/Front Panel
- Scalable recording settings
- **Multi***Mode* Recording - Dynamically-switchable resolution, record-rate & compression (MPEG4/JPEG) per camera
- JPEG, MPEG-4 or H264 recording and transmission
- Up to 4TB of on-board storage
- HDMI monitor support
- I.P Camera support
- Web pages provide easy remote configuration
- Single, Picture in Picture and Multiway displays
- Live and playback viewing locally and over Ethernet
- Built in activity detection
- On-board Help videos
- Built in CD-R/DVD-R writer and USB ports for download of video archive to external flash memory
- **Point&***go* telemetry control and Absolute Positioning
- Alarm Inputs & Outputs
- Easy to use on-screen, colour coded soft keys
- Front panel interface
- Text support and text search features ideal for retail installations
- Optional external keyboard available
- Configuration via USB mouse and USB QWERTY keyboard
- BS8418 compliant

NetVu CONNECTED

The unit has NetVu Connected technology built-in to ensure maximum compatibility with future developments in networked security. NetVu Connected technology enables the Unit to fully interact with other NetVu Connected compatible products from Dedicated Micros including the DV-IP Decoder, NetVu ObserVer and PDA Viewers. Providing interoperability between the worlds leading security companies, NetVu Connected uses industry standard networking protocols supported by a wide range of third party integration products and SDKs to ensure future on-going compatibility.

**COMMON CONFIGURATION INTERFACE**

A Common Configuration interface is displayed when the unit's configuration screens are accessed locally at the unit or remotely via a web browser. This unified system ensures that the installer is familiar with the configuration screens irrespective of their location to the unit, minimising training and familiarisation time and increasing the speed of installation and alteration.

The Unit includes a unique colour-coded menu structure and on screen Graphical User Interface (GUI). Context sensitive, the menu structure always represents the area of the menu the user is in, allowing them to quickly select the options and settings they need without having to trawl through menu pages and options. The colour coded buttons displayed on the monitor match those on the IR Remote Control, whilst control can also be conducted through an attached USB Mouse or supported Keyboard (DM/KBC1 / DM/KBC2).



Dedicated Micros ©2010

point&go

**Point&*go*** provides the user with easy to use, fast, accurate telemetry control via an attached monitor. With no need for a telemetry keyboard, users are able to use Pan & Tilt control of a Dedicated Micros Oracle Dome simply by clicking an area of the monitor. The camera will instantly respond, positioning the selected area in the middle of the screen, ideal for tracking movement through a scene.

**MAP**

Users can now navigate around their CCTV installation using a graphical map. Selecting the relevant camera from the map will instantly connect the user to that cameras image stream. With the ability to load bespoke map images and floor plans to reflect their installations, the Maps feature is ideal for quickly identifying camera locations around a site or CCTV network.

## *Design of the manual*

The manual has three parts:

1. Installation — Shows details of how to install the unit and connect external devices.
2. Configuration — Shows details of the unit's menus.
3. Operation — Shows quick reference details on how to control the unit.

The order and layout of these pages has been designed to help the setup process. It is recommended that the menus are edited sequentially (as they appear on the page), to enable accurate, easy and efficient setup.

Dedicated Micros ©2010

# Important Safeguards

**Read Instructions**
All the safety and operating instructions should be read before the unit is operated.

**Power Sources**
This unit should be operated only from the type of power source indicated on the manufacturer's label.

**Servicing**
Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards.
Refer all servicing to qualified service personnel.

**Ventilation**
Ensure unit is properly ventilated to protect from overheating.
All the safety and operating instructions should be read before the unit is operated.

To prevent fire or shock hazard, do not expose this equipment to rain or moisture. The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user of this equipment that there are dangerous voltages within the enclosure which may be of sufficient magnitude to constitute a risk of electric shock.

**WARNING**

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

**Lightning Strike**
The unit has some inbuilt protection for lightning strike, however it is recommended that isolation transformers be fitted to the system in areas where lightning is a common occurrence.

**Regulatory Notes and FCC and DOC Information**
(USA and Canadian Models Only)

Warning: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

If necessary, the user should consult the dealer or an experienced radio/television technician for corrective action. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the US Government Printing Office, Washington, DC20402,
Stock No. 004-000-00345-4.

This reminder is provided to call the CCTV system installer's attention to Art. 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.


Dedicated Micros ©2010

**CE Mark**

If this product is marked with the CE symbol it indicates compliance with all applicable directives.

Directive 89/336/EEC.

A 'Declaration of Conformity' is held at Dedicated Micros Ltd.,

1200 Daresbury Park, Daresbury, Cheshire, WA4 4HS, UK.

**Laser**

The unit supports an integrated CD-R/DVD-R writer, the following are additional warnings associated with installing and operating the CD-R/DVD-R writer, please pay particular attention to this information.

- Caution - Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- To prevent exposure to laser emanations (harmful to the eyes), do not attempt to disassemble this unit.

# Installing the Unit

## Before you start

### *Check the contents of the box*

*The following items are included in the box:*

Remove all items from the packaging and check the items listed below are present.

- SD Advanced DVR (either 8, 16 or 32 input)
- IR Remote Control (x 2)
- Power Leads
- IR Extender Lead
- SD Advanced Software/Documentation CD
- Mouse
- Rack Mounting brackets
- RS485 Telemetry Adaptor
- Quick Start Guide

If any of these items are missing please contact Dedicated Micros Technical Support team.

***Note:*** *Before installing the SD Advanced DVR, carefully read all Safety Instructions and the following information on where the unit should be located.*

### *Choosing a location for installation*

- The SD Advanced is designed to be desk, shelf or rack mounted. Rack mounting brackets are available as an optional accessory.
- Ensure the SD Advanced unit is properly ventilated to protect from overheating.
- Ensure there is a 3cm gap on both sides of the unit.
- Ensure the IR receiver on the front of the unit faces the operator position, and is not more than 10 feet (3 metres) from the operator. An IR Remote Control Extender is also available.
- Ensure the unit is not located anywhere it could be subject to mechanical shocks.
- The unit should be located in an area with low humidity and a minimum of dust. Avoid places like damp basements or loft spaces.
- If the unit is to be installed in a closed assembly, the maximum operating temperature must not exceed 40°C (104°F).
- Ensure there is reliable earthing of the mains outlet when fitted to supply connections (other than direct connection to the branch circuit).
- Any branch circuit supplying the unit must be rated at 15Amps.
- It is recommended that an uninteruptable power source be connected to the unit in case of power failure (to ensure continuous operation of the unit).


Dedicated Micros ©2010

## *Electrical Connections*

*Please ensure the following are available and have been tested prior to the installation:*

- Mains point
- Network point
- Network cable
- Active video signals i.e. at least one working camera feed
- PC with CD ROM drive and connection to the same network as the DVR (Recommended).

## *Quick Overview of SD Advanced Record Settings*

*The SD Advanced provides as default:*

Consistent recording duration and smooth motion video per camera regardless of the number of cameras.

Default record settings at MPEG4 6.25pps (at 2CIF), JPEG 3pps (at 2CIF) and MultiMode recording at MPEG4 6.25pps (at 2CIF), JPEG 6.25pps (at 2CIF).

**Complete Flexibility**
The advanced record menu can be used to configure individual cameras to suit specific requirements e.g. Entry/Exit routes. Various storage sizes are available dependant on the combination of the number of cameras, the storage options and record rates selected.

***Note:*** *It is the Installer/Owner's responsibility to ensure that the record duration is set to the necessary requirements of the application.*

**Multi***Mode* **Recording**
*The unit supports* **Multi***Mode recording, which is a storage technology developed by Dedicated Micros. This offers the ability to set different recording rates, resolutions and compression formats across scheduled, normal and alarm modes for each individual camera.*

*By varying the quality, bit rate and file size of the recorded images, the* **Multi***Mode function can increase recording capabilities of the unit.*

**Multi***Mode* offers:

Ability to set different recording resolutions.

Ability to set and switch MPEG or JPEG compression recording as required.

Ability to set PPS recording rate per camera.

Dynamically switchable resolution when switching from Normal to Event recording.

Dynamically switchable compression between MPEG4 and JPEG from Normal to Event recording.

Dedicated Micros ©2010

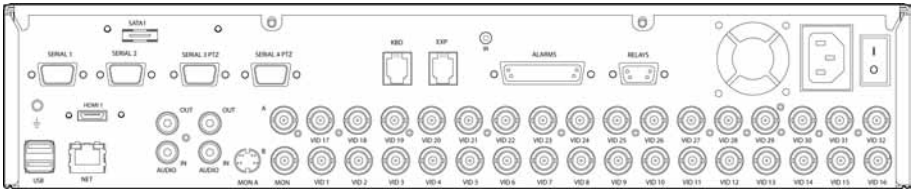
# Installation

## Front Panel connections

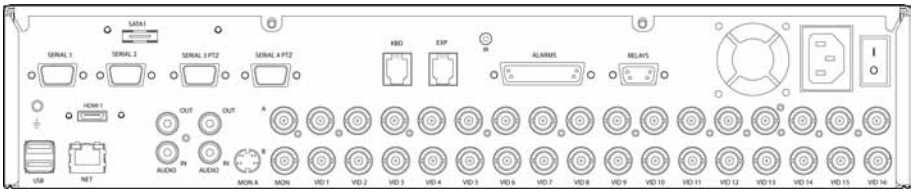
*Data*

| | |
|---|---|
| DVD-R | Internal CD/DVD-R drive (located under hinged flap) |
| USB | USB2.0 connector (located under hinged flap) |
| LED | Green - Unit working normally |
| | No LED - Power Failure |
| | Live - Unit is in Live mode when lit. |
| | Play -Unit is in Playback mode when lit. |
| | Spot - Spot (MON B) monitor is being controlled |
| | Record - Unit is recording video to the internal hard disk. |

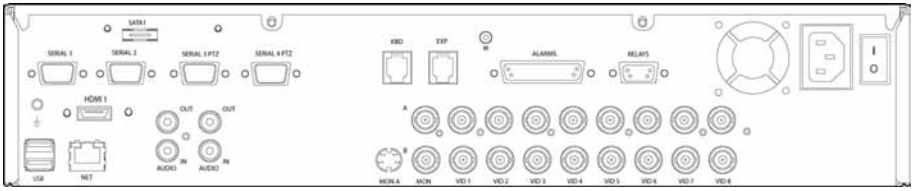
## Rear Panel connections



*32 Input model*



*16 Input model*



*8 Input model*



Dedicated Micros ©2010

## *Video*

*8. 16 & 32 way units*

| | |
|---|---|
| VID1 to VID8/VID16/VID32 | 75Ω BNC composite video input, 1V pk-pk with loop through 1V available on 8 and 16 input variants |
| MON A | 75Ω BNC composite monitor output, 1V pk-pk |
| MON B | Spot Monitor output |
| MON A | S Video Connection |
| HDMI | High-Definition Multimedia Interface connector |

***Note:*** *The position of the HDMI connector will vary dependant on model*

## *Audio*

| | |
|---|---|
| Audio IN (Dual) | RCA (phono) socket, 8KHz/16KHz/22KHz sampling 75Ω input impedance, 1V pk-pk |
| Audio OUT (Dual) | RCA (phono) socket, line level <100Ω output impedance,1V pk-pk amplification required |

## *Data*

| | |
|---|---|
| SERIAL 1 | RS-232 (3 wire & 9 wire) |
| SERIAL 2 | RS-232 (3 wire & 9 wire) |
| SERIAL 3 (PTZ) | RS-485 (2 wire & 4 wire) |
| SERIAL 4 (PTZ) | RS-485 (2 wire & 4 wire) |
| USB | 2x USB2.0 connectors |
| IR | Infra-Red Input connector for IR Remote Control Extender |
| NET | RJ45 Ethernet network connector, 10/100 Mb/s Ethernet Network |
| KBD | RJ12 connector for use with Dedicated Micros telemetry keyboards (KBC1, KBC2) |
| EXP | RJ12 expansion port for future use |
| SATA | E-Sata port available for storage expansion |

## *Alarms and relays*

| | |
|---|---|
| ALARMS IN | Via 25-way (female) D Type 24V 200mA<br>20 general alarm inputs<br>Range of Alarm states are:<br>i. 0 – 800R = Short circuit<br>ii. 800R – 2K = closed contact<br>iii. 2k – 12k = open contact<br>iv. > 12K = open circuit |
| RELAYS | Via 9-way (female) D Type rated at 24V 200mA<br>4 onboard light duty relay output (500mA@ 12V-48V Max) |

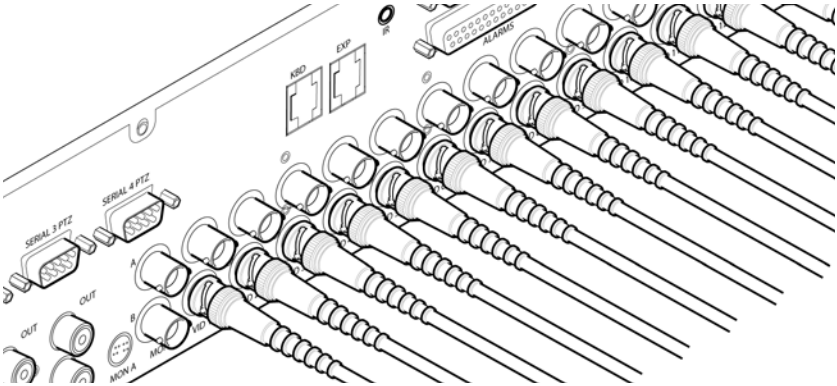
## *Power*

| | |
|---|---|
| POWER | IEC mains power socket & switch |

# Installing the SD Advanced Unit

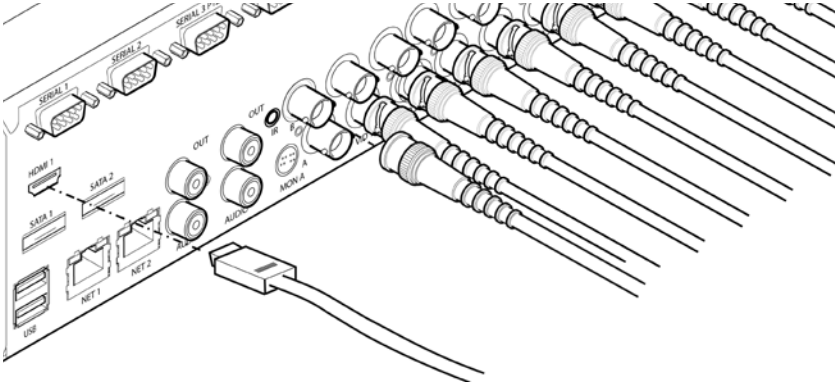
*This procedure shows the sixteen camera input version.*

**Step 1 Connecting Analog Video**




The SD Advanced supports up to 8, 16 or 32 connected analog Video Inputs (dependant on model) via the 75Ω BNC connectors. Connect cameras to the video inputs, starting from input 1.

**Step 2 Monitor**



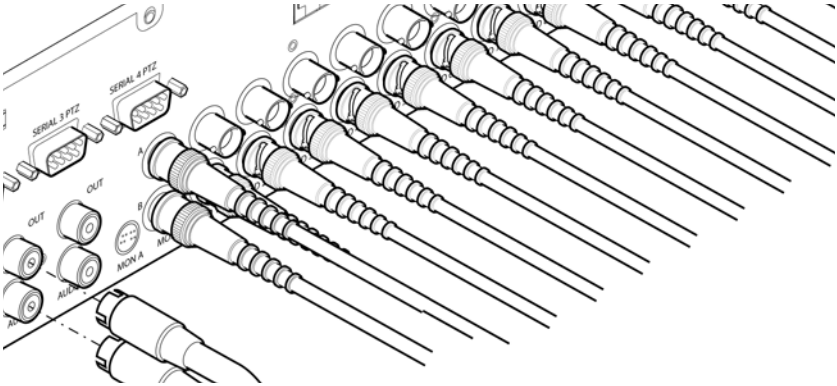

The unit supports a main monitor via ‘HDMI 1’ and BNC ‘A’. A spot monitor can be connected via BNC ‘B’.

***Note:*** *The position of the HDMI port will differ dependant on model.*



Dedicated Micros ©2010

**Step 3 Connecting Audio**



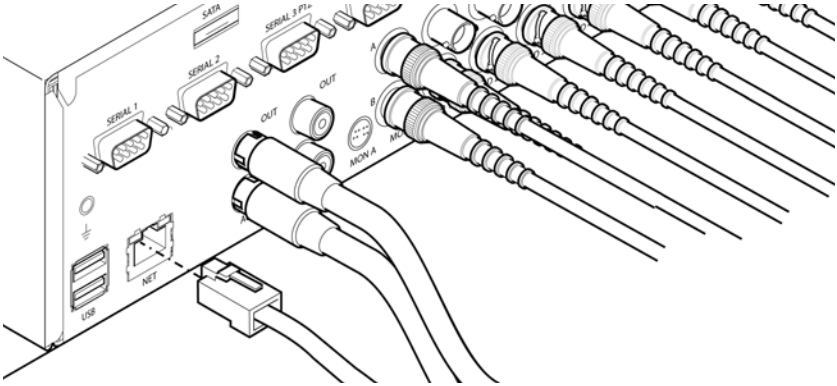

The SD Advanced supports two channels of bi-directional audio, accessible through NetVu ObserVer. Connect the audio equipment to the phono sockets AUDIO IN and AUDIO OUT. The audio channel defaults to recording camera 1.

The following modes of operation are supported:

- Challenge – intruders from an RVRC.
- Listen – to local audio from a site at the RVRC.
- Record - local audio from a site with the video.
- Replay - all audio through a local Audio output (not supported when Audio out is used as a challenge/PA source).

***Note:*** *The Audio output can be configured as a challenge output or as a replay output.*

**Step 4 Connecting to the Network**




The unit supports a 10/100Mbps auto-detecting network port. Use a CAT5 cable to connect the unit to the network.

By default the unit is configured for DHCP i.e. the unit is automatically allocated an IP address from a network DHCP server.

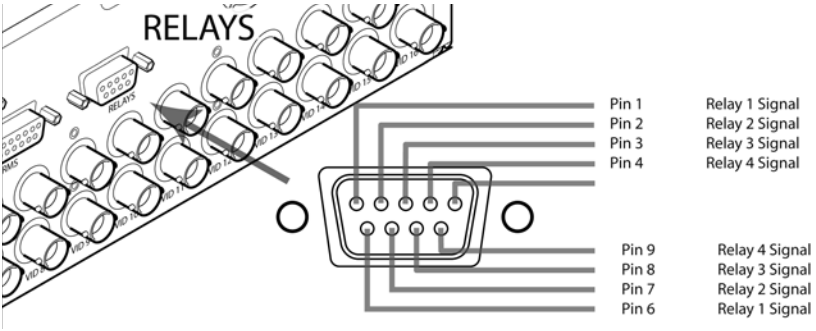
DHCP works by assigning an IP address at initial connection to the network. It is possible however that this IP address can change without notification i.e. following power failure. It is therefore recommended that the unit be allocated a fixed IP address. A fixed IP address can be assigned via the Configuration Menu pages:Network Settings->Network->IP Address.

When the unit is powered up, the network address can be found by viewing on a local monitor and navigating to Configuration Menu pages:System Settings->System->IP Address.

Refer to 'Configuring The Unit' for further guidance on locating the unit's IP address and for details of the default DNS (Domain Name Server) address.

DNS (Dynamic Name Servers) is supported and therefore the unit can be assigned a name. This removes the need for the unit to have a fixed IP address and makes it easier for a remote user to locate.

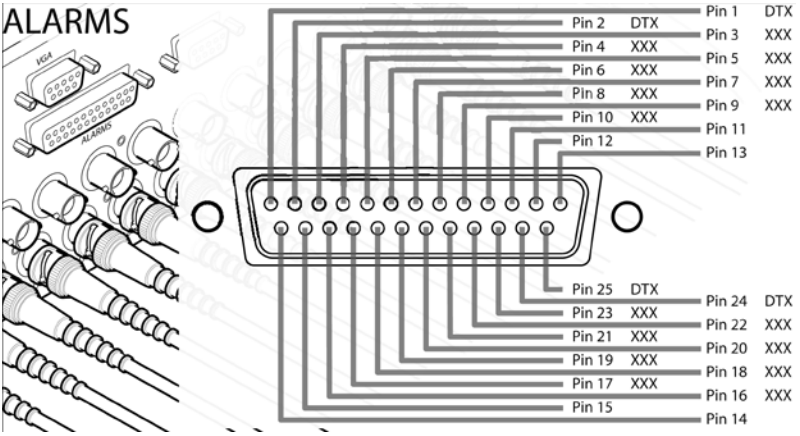
**Step 5 Relays**




The SD Advanced supports up to four 24V 200mA relays.

| Relay Connector Pins | Connection |
|---|---|
| 1 & 6 | Relay 1 signal |
| 2 & 7 | Relay 2 signal |
| 3 & 8 | Relay 3 signal |
| 4 & 9 | Relay 4 signal |

**Step 6 Alarms**





Dedicated Micros ©2010

The SD Advanced supports 20 normally open/closed tamper proof alarm inputs, or one Global keyswitch input with camera specific inputs configurable as entry/exit alarms. The alarms support tamper proof detection using 1k in line and 5K end of line resistance. The unit detects short circuit, open circuit and contact closure. This functionality is part of the advanced alarms supported on NetVu Connected products and includes features required for Central Monitoring. It is compatible with the British Standard BS8418.

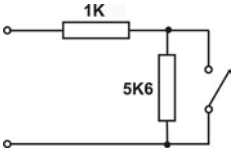
### Relay Connector

| Pin | Alarm Input Connection |
|---|---|
| 1 - 20 | 1-20 |
| 21-25 | Earth Common |

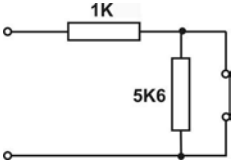
### End Of Line Circuitry

The following describes the EOL tamper alarms circuitry needed when EOL has been configured. There should be two resistive values within the tamper alarm circuitry. These must be located inside the alarm device (furthest point from the unit).

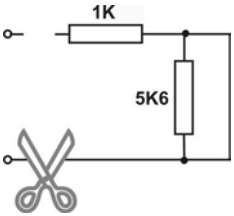
The alarm state could be Normally Open or Normally closed however the tamper states are the same for both settings.



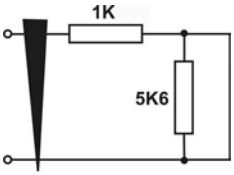

Open, the resistive value is 6.8K ohms (1K + 5.6K).




Closed, the resistive value is 1K ohms, as the circuit does not see the 5.6K ohm resistor.




Open Circuit Tamper, the resistive value is infinity as the circuit has been cut and therefore is ‘open’.




Short Circuit Tamper, the resistive value is 0 Ohms.

Dedicated Micros ©2010

**Step 7 Connecting Serial Ports**
Serial ports have three main uses:

1. Connecting twisted pair telemetry for PTZ cameras.
2. Providing text data recorded with the video e.g. Point of Sale.
3. Debug operations.

***Note:*** *Telemetry cameras should be connected to Serial 3 and 4. Text data can be retrieved from any serial port.*

**RS232**

| RS-232 | Serial 1 & 2 Pin Allocation | Serial 3 & 4 Pin Allocation |
|---|---|---|
| Data Carrier Detect (DCD) | 1 | - |
| Receive Data (RX) | 2 | 2 |
| Transmit Data (TX) | 3 | 3 |
| Data Terminal Ready (DTR) | 4 | - |
| Ground (GND) | 5 | 5 |
| Data Set Ready (DSR) | 6 | - |
| Ready To Send (RTS) | 7 | 7 |
| Clear To Send (CTS) | 8 | 8 |
| Ring Indicate (RI) | 9 | - |

**RS485**

| RS-485 | Serial 3 & 4 Pin Allocation |
|---|---|
| Transmit Data (TX+) | 1 |
| Transmit Data (TX-) | 9 |

**Step 8 Connecting a Keyboard**
The SD Advanced supports Dedicated Micro keyboards DM/KBC1 and DM/KBC2. Connect either of these keyboards via the KBD connector on the rear panel.

***Note:*** *Refer to the Unit Operation section of this manual for further guidance regarding the supported keyboards.*


Dedicated Micros ©2010

**Step 9 Connecting DM Oracle, 2060 & 2040 Domes**
A DM Oracle, 2040 or 2060 Dome can be connected via either co-axial telemetry or RS485 twisted pair. If using co-axial the address switches should be set as:

Blue switch - F

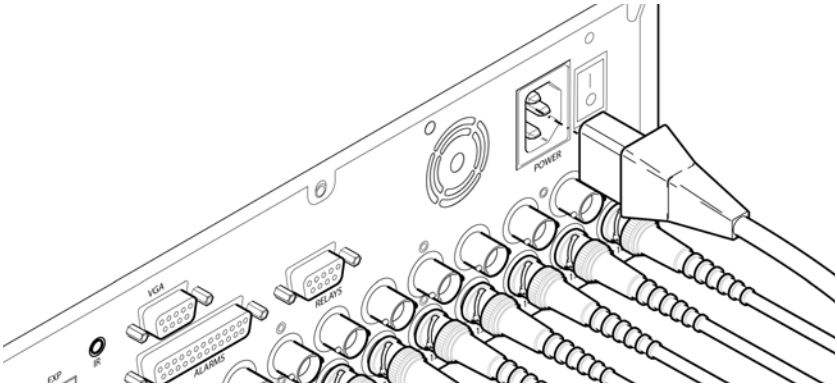
Yellow switch - D

If the dome is being connected using RS485, the dome address should be set according to the camera number of the SD Advanced.

Pin connections for RS485 connection to a Dennard dome on serial port 3/4 are:

| Dome Cable | SD Advanced Serial Connector |
|---|---|
| Yellow | 1 TX+ |
| Green | 9 TX- |

**Step 10 Connecting Power**




The SD Advanced has an internal power supply unit. Connect the mains lead to the unit and then to the wall socket, or to a fused spur connection. To be compliant with wiring regulations in some countries, an Alarm/Security device should be connected to a fused spur and not a wall outlet socket (check local regulations before installation).

# Configuring the Unit

*The unit can be configured either on the local monitor or over the network using a PC with Internet Explorer or similar browser. Both have near identical menu interfaces.*

## Accessing the menus on a local monitor

The Configuration pages can be displayed on a local monitor.

When connected, press the MENU button on the IR Remote Control.

***Note:*** *If the IR Remote Control does not open the configuration menus, press the DVR button to make sure it is in DVR mode, then press the MENU button again.*

## Accessing the menus on a PC web browser

### *Locating the Unit IP address*

The IP address of the unit is required to access the webpages. It can be identified from the configuration menu pages using the local monitor, press the MENU button on the IR Remote Control and navigate to the System Settings->System menu to find the DHCP assigned IP address.

***Note:*** *The unit can be installed in a DHCP network environment where an IP address, subnet mask and default gateway will automatically be allocated from the network DHCP Server (DHCP is enabled by default).*

***Note:*** *If a DNS (Domain Name Server) address is not to be used, it is strongly advised that a fixed IP address be assigned (a DHCP assigned address can change without notification i.e. following power failure).*
*A fixed IP address can be assigned via the Network Settings->Network menu.*

For information on locating the unit's IP address via a PC and serial port connection, refer to Appendix D.

### *Default DNS Address*

*It is recommended that a DNS (Domain Name Server) address be configured. Assigning a recognisable name can help a remote user to locate the unit.*

If no System name is allocated to the unit, the default DNS address will be:

machine serial number.yourdomain.com

- <machine serial number> is displayed in the System menu page and also on the underside of the unit.
- <yourdomain> is the name assigned to your DNS network.

The default DNS address can be renamed via the Network Settings->Network menu. Following renaming, the DNS address will be:

yourname.yourdomain.com

- ' yourname' is the name assigned via the Network menu.

***Note:*** *To activate an assigned DNS address, it will be necessary to reboot the unit. The unit can be rebooted via System Settings:Maintain-> Reset.*

***IMPORTANT:*** *To set the time and date on the unit, navigate to System Settings->Time and Date.*

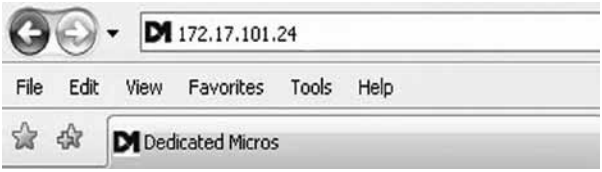


Dedicated Micros ©2010

## *Accessing the Configuration Webpages*

*The unit can be configured using the webpages. To access these:*

1. Launch Internet Explorer (or similar web browser package).
2. Type the URL for the unit (IP or DNS address).

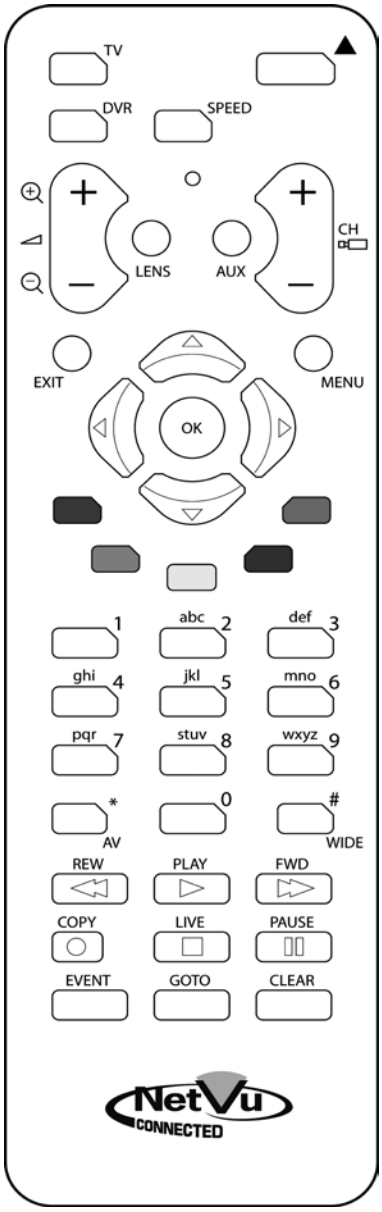


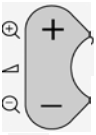
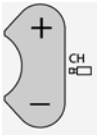

3. The Opening menu page will be displayed.

# Remote Control

*The IR Remote Control offers all the control functionality required to navigate the menus.*

***Note:*** *Not all buttons on the IR Remote Control are relevant for the Unit.*



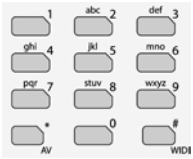

| Key | Button |
|---|---|
| | Switches the Remote Control to 'TV' mode and sends codes understood by common TV sets. |
| | Switches the Remote Control to 'DVR' mode. Note the DVR mode is the default mode of operation. |
| | Toggle the speed of PTZ camera movement (two speeds available). |
|  | Use the Zoom button to zoom in/out with a selected camera. Also used to zoom (x2) into Live or Playback images. |
| | This button will change the Zoom Keys operation to focus or iris functions (when available). |
|  | Use this button to cycle through available cameras. |
| | This button should be pressed (followed by a numeric entry) to carry out auxiliary actions on a PTZ camera. |
| | Press the Menu button to enter the Configuration menus. |
| | Press the Exit button to exit the Configuration menus. |



Dedicated Micros ©2010

Use the Directional and OK buttons to navigate through the menu screens and accept changes. Also use for PTZ telemetry control of cameras.

Use the Softkeys (Red, Green, Yellow, Purple) to directly access the corresponding function displayed on the menu screen.




The Number pad should be used to select specific cameras and preset positions when available.

Use the Playback buttons to interrogate recorded images. Use the LIVE button to switch from Playback or menus to a LIVE display.

Dedicated Micros ©2010

# Main Menu

*When first accessing the unit, the main menu will be displayed. This menu allows access to the Configuration menus, the Viewer menus and also several Download options.*

***Note:*** *The Download options will only be available if viewing remotely via an IP connection.*

Select the Configuration menu tab to access the unit's Configuration menus. Refer to 'Navigating the Configuration Menus' for further guidance.

Select the Event Search tab to access the unit's Event Search function. Refer to 'Event Search' for further guidance.

***Note:*** *The 'Event Search' option will only be displayed if 'Enable Event Search' is selected in the 'Features' menu: System Settings->Features.*

Select the Viewer menu tab to access the unit's Viewer function. Refer to 'Unit Operation' for information on the numerous Viewer features.

Select the Download menu tab to access the various Download sub-options. Select from:

- Product Manual — Select to open an electronic version of the Installation & Operation Guide.
- ObserVer Manual — Select to open an electronic version of the NetVu ObserVer User Guide. NetVu ObserVer is a free video management software package from Dedicated Micros that allows users to seamlessly view distributed images from any 'NetVu Connected' product.
- NetVu ObserVer — Select to download the NetVu ObserVer video management software.
- Java (JRE) — Select to download the Java (JRE) software (from the unit). This software is required to successfully view Configuration and Viewer menus remotely.

***IMPORTANT:*** *By default, no Usernames and Passwords are required to access any of the various menus. Usernames and Passwords can however be added to regulate access to the Configuration and Viewer menus. Refer to the 'Console Settings-> User Accounts' menu for information on establishing Usernames and Passwords.*


Dedicated Micros ©2010

# Navigating The Configuration Menus

*When accessing the configuration menus, the menu tree will be displayed.*

The configuration pages are navigated using the menu tree (displayed on the left of each page). Selecting one of the menu options will display the relevant page. Associated sub-menus will then be available.

Relevant menus can also be accessed directly from other menu screens via the coloured softkey options shown at the base of each menu. The options available will depend on the menu being viewed. Select a softkey option by pressing either the corresponding button on the IR Remote Control (if viewing the menus locally), or by selecting the relevant option via the PC mouse (if viewing the webpages).

***Note:*** *Any changes made via the webpages are automatically saved when the page is closed. To 'manually' save changes, select the Save option.*

Dedicated Micros ©2010

## *Using the IR Remote Control*

Press the MENU button to access configuration menus via a connected local monitor. The menu will have a red indicator highlighting the first option. Select a main menu heading to open a drop down list of further sub-options. Press the Down Directional button to highlight the next menu option, press OK to open the highlighted menu.

Press the Right Directional button to highlight the first editable parameter on the screen.

Use the Left/Right/Up/Down Directional buttons to move between fields.

Select OK to start editing a field (the option will be outlined in green).

Use the Up/Down Directional buttons to change the settings within an editable field.

Use the OK button to accept a new setting. Use the coloured softkeys to select the accompanying colour option on screen i.e. red button to select the red option. To undo changes made to any menu, select the Refresh (Purple) option.

***Note:*** *See below for information on entering alpha-numeric data.*

## *Using the Front Panel Interface*

The Configuration and Viewer menus can be navigated and edited using the unit's front panel interface (via a connected local monitor).

Navigate the menu tree via the Up/Down Directional buttons. When a menu is highlighted, open by pressing the OK button.

Use the Left/Right/Up/Down Directional buttons to move between fields.

Select OK to start editing a field.

Use the Up/Down Directional buttons to change the settings within an editable field.

Use the OK button to accept a new setting.

Use the Exit button to leave the Configuration pages and open the Viewer menu.

Use the colour bar buttons (Red, Green, Yellow, Blue and Purple) to directly access the corresponding function displayed on the menu screen i.e. red button to select the red option.

When viewing recorded images, use the Playback buttons (Play, Stop, Fast Forward and Rewind) to navigate the images.

Use the Goto button to display the Goto menu. This menu can be used to display recorded images from a specific date/time. Refer to Unit Operation->GoTo Menu for further information.

Use the Copy button to display the Copy menu. This menu can be used to copy recorded images to a connected USB device or disc. Refer to Unit Operation->Copy Menu for further information.

Use the Live button to switch to display live images from a camera when viewing recorded images from the same camera.

Use the Menu button to display the configuration menus.

***Note:*** *See below for information on entering alpha-numeric data.*



Dedicated Micros ©2010

## *Entering Alpha-Numeric Data via a Local Monitor*

Numeric or text data is entered using the on-screen Virtual Keyboard (Arrow Key Editor).

To display the Virtual Keyboard, navigate to the relevant text input box using the Directional buttons and double press the OK button twice on the IR Remote Control or Front Panel Interface. The Virtual Keyboard is displayed.

Use the Directional buttons to move between characters, use the OK button to select a character. Select 'Submit' to enter details, press 'Cancel' to exit without entering any text.

Alpha-numeric data can also be entered in either upper or lower case format by 'multi-tapping' a relevant button. For example, with the cursor located in the text entry window of the Virtual Keyboard, repeatedly tap button '2' to cycle through the following characters: 2,A,a,B,b,C,c,2 etc.

To select one of these characters, simply stop tapping the button when the chosen character is displayed. The cursor will then progress, ready for the next character entry.

***Note:*** *A USB Keyboard (not supplied) can be connected via one of the USB ports on the unit. The USB Keyboard can then be used to enter alpha-numeric data via the local menus.*

## *Using a USB Mouse or the Webpages*

Navigate the menus by clicking the tabs displayed on the left of the menu headings (on the menu tree). The first option is highlighted with a red tab. Select a main menu heading to open a drop down list of further sub-options.

Highlight an editable field by clicking on it directly.

If viewing pages locally, enter alpha numeric data via the Arrow Key Editor (see above). If viewing remotely, enter via the PC keyboard. If available, click on the drop down menus to select settings.

***Note:*** *A selected item in the drop down list will appear highlighted.*

Navigating away from a page (clicking on a different option on the menu tree) will automatically save any changed settings. To undo changes made to any menu, select the Refresh (Purple) option.

## *Using a Supported Dedicated Micros Keyboards (DM/KBC1 & DM/KBC2)*

The unit can also be controlled using an optional Dedicated Micros keyboard. This is connected via the KBD connector on the rear of the unit and provides the same control functions as the I.R Remote Control.

***Note:*** *Refer to 'Using the optional Keyboards (DM/KBC1 & DM/KBC2)' for further guidance.*

# System Settings

*The menus under the System Settings heading allow the unit's core settings to be viewed, changed and the system software upgraded.*

*The System option displays details about the unit including the IP address, unit serial number, MAC address and software version.*

*The Unit Status page displays information about the unit's operating condition, shows how long the unit has been operating and the reason for the last reset. It also shows camera status and displays any failed cameras.*

*The Alarm Status page shows which contacts are open, which zones are in alarm and which relays are operating.*

*The Language page allows the system language to be set. The language can also be changed for the current session only.*

*The Time and Date page allows the unit time and date settings to be adjusted, including setting the timezone.*

*The Serial Ports page allows each of the four serial ports to be individually configured for one of a range of operations, including EPOS, debug, PPP and telemetry.*

*The Audio page shows the settings available for each of the audio channels and allows configuration of audio quality.*

*The Features page allows control of the different features that are available within the software including Email reporting, webcam support and control of the display resolution.*

*The Maintain page allows the current configuration to be saved, and for previously saved settings to be loaded. It also enables easy upgrade of the system software.*

*The PowerScript Mgmt page allows installed PowerScripts to be activated/deactivated on start-up.*

*The About  menu allows access to numerous system information pages.*



Dedicated Micros ©2010

# System

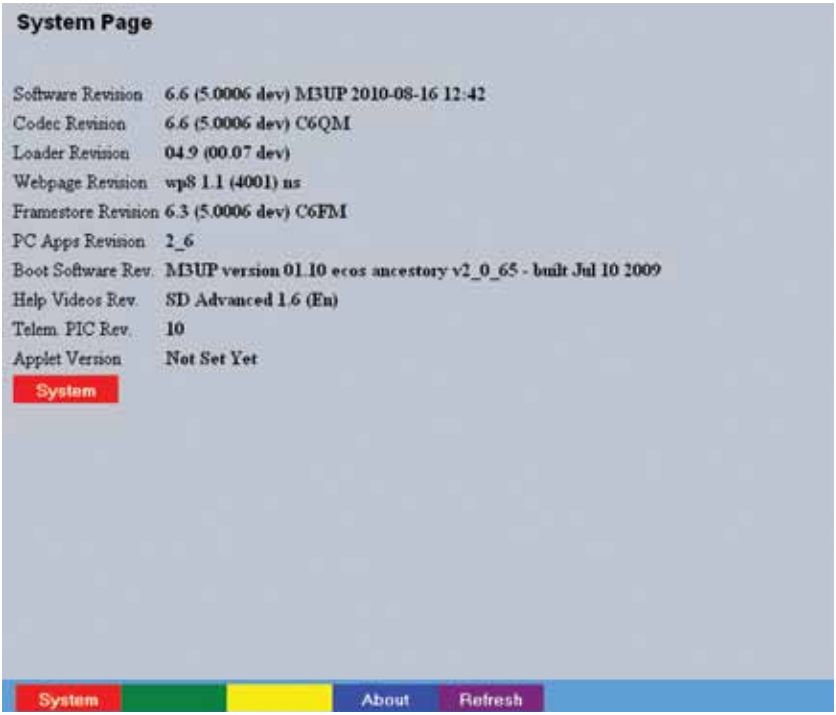
*This menu shows the general information about the unit including the version of software installed, the unit's serial number and the allocated DHCP IP address.*

| | |
|---|---|
| Product Descriptor | Details the product model. |
| Serial Number | Identifies the serial number of the specific unit. |
| PCB Serial Number | Displays the PCB (Printed Circuit Board) serial number of the unit. |
| Product Code | Displays a code identifying the unit's specification. |
| Earliest Recording | Displays the date/time of the earliest recording held on the unit. |
| System Name | This field can be edited to allocate a name to the unit. This is displayed when the unit is accessed via NetVu ObserVer and is sent when transmitting information to a Remote Video Response Centres (RVRC). |
| Video Standard | Displays the video standard adopted by the unit i.e. PAL, NTSC. |
| Number of Cameras | Shows the number of camera channels on the unit. |
| Global PPS | Details the Global PPS (Pictures Per Second) recording rate for all cameras at 4CIF, 2CIF and CIF. |
| Video Storage Gbytes | Highlights the available video storage capacity in Gigabytes. |
| MAC Address | This is the MAC address assigned to the unit. |
| IP Address | This is the IP address allocated to the unit. |

Dedicated Micros ©2010

| | |
|---|---|
| Sub Net | This is the subnet of the network where the unit is located. |
| Gateway | This is the IP address of the default gateway (router) assigned by the DHCP server. |
| Software (Red) | Select this option to display installed software information (see below). |

## Software Menu


System Page
Software Revision 6.6 (5.0006 dev) M3UP 2010-08-16 12:42
Codec Revision 6.6 (5.0006 dev) C6QM
Loader Revision 04.9 (00.07 dev)
Webpage Revision wp8 1.1 (4001) ns
Framestore Revision 6.3 (5.0006 dev) C6FM
PC Apps Revision 2_6
Boot Software Rev. M3UP version 01.10 ecos ancestory v2_0_65 - built Jul 10 2009
Help Videos Rev. SD Advanced 1.6 (En)
Telem. PIC Rev. 10
Applet Version Not Set Yet
System
System
About
Refresh

| | |
|---|---|
| Software Revision | This identifies the version of software the unit is running. |
| Codec Revision | This identifies the codec version the unit is running. |
| Webpage Revision | This identifies the webpage version the unit is running. |
| Framestore Revision | This identifies the Framestore Revision the unit is running. |
| PC Apps Revision | This identifies the revision archive of the Viewer and associated PC Apps software. |
| Boot Software Rev. | Displays the infrastructure componentry software revision. |
| Help Videos Rev. | This identifies the version of Help Videos installed on the unit. |

***Note:*** *Refer to 'Go To Viewer->Help Videos' for guidance on viewing the imbedded Help Videos.*

| | |
|---|---|
| Telem PIC Rev. | This identifies the version of the Telemetry control device installed on the unit. |
| Applet Version | This identifies the applet version installed on the unit |

***Note:*** *Refer to 'Display Settings->Viewer Defaults' for guidance on using a remote applet (this can lessen load times when accessing multiple DVRs/Servers).*

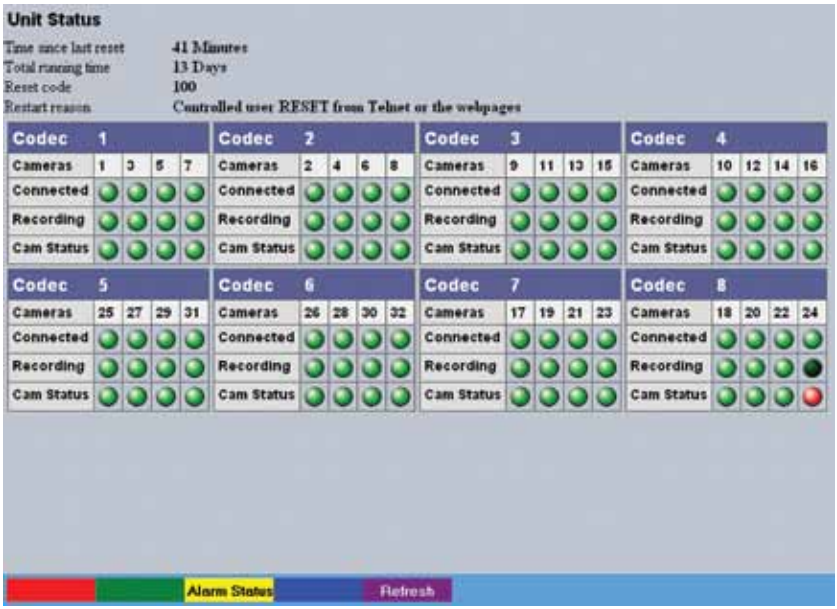
| | |
|---|---|
| System (Red) | Select this option to return to the System menu. |



Dedicated Micros ©2010

# Unit Status

*This menu details information regarding the status of the unit, notably the total time the unit has been operating and the time since its last reset. Status log information can also be exported via the 'Export Logs' option to either a CD-R/DVD-R or a USB device.*

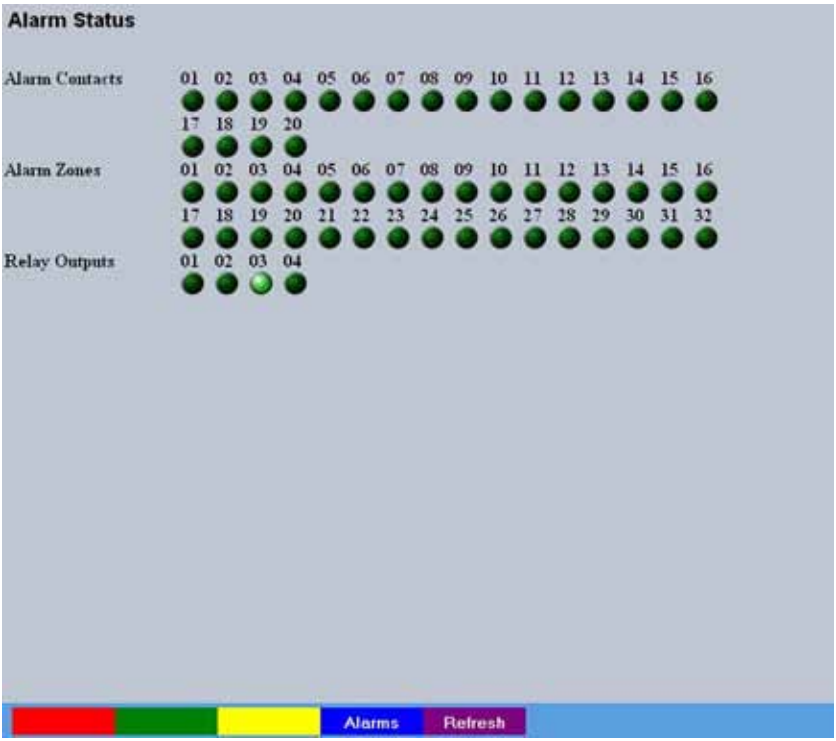



| | |
|---|---|
| Time since last reset | Details the time since the unit was last reset. |
| Total running time | Details the total time the unit has been operational. |
| Reset code | The last reset code used is displayed. |
| Restart reason | The reason for the last restart is displayed i.e. Controlled User Reset. |
| Codec | Up to four codecs are installed within the unit (dependant on model). Cameras are assigned to the codec in the following sequence: Camera 1 is assigned to Codec 1, Camera 2 to Codec 2, Camera 3 to Codec 3, Camera 4 to Codec 4, Camera 5 to Codec 1, Camera 6 to Codec 2, etc.<br>Within each Codec window, each camera channel is listed, along with connection, recording and camera status information. |
| Cameras | Cameras assigned to each codec are displayed.. |
| Connected | Those camera channels with cameras connected will be highlighted light green. Those not in use will appear dark green. |
| Recording | Those camera channels that are currently recording are highlighted light green. Those not recording will appear dark green. |
| Cam Status | Those camera channels where the connection is deemed to be functioning correctly will be highlighted light green. Those deemed to have failed will appear red. Camera channels with no connected camera will appear dark green. |

Dedicated Micros ©2010

# Alarm Status

*This menu details information regarding the status of the unit's alarm contacts, alarm zones and relay outputs.*



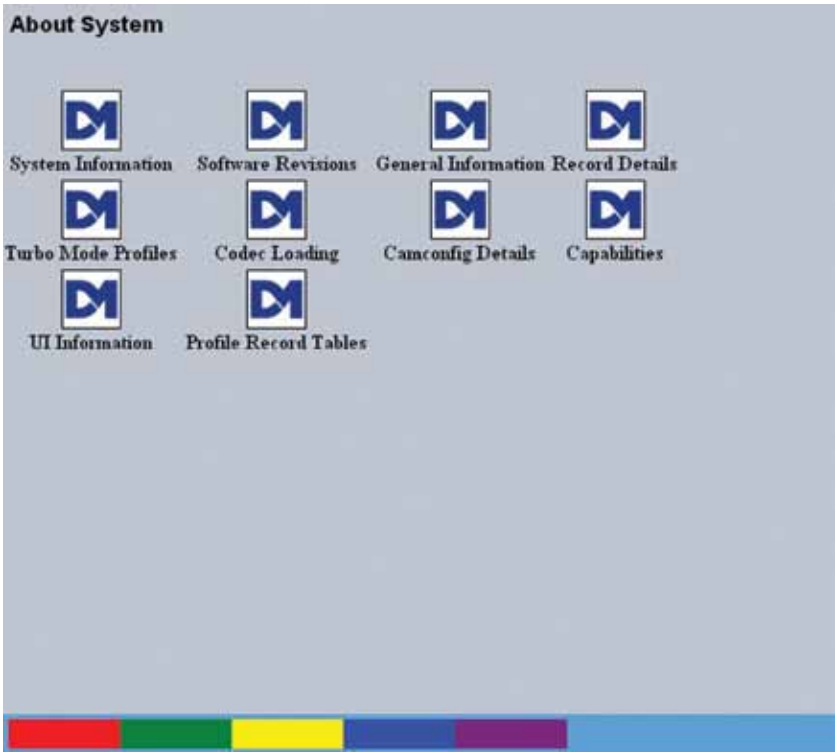

| | |
|---|---|
| Alarm Contacts/Zones/Relay Outputs | Alarm Contacts, Alarm Zones and Relay Outputs that are in an 'active' state are shown light green. 'In-active' ones appear dark green (not illuminated). |



Dedicated Micros ©2010

# About

*This menu allows access to numerous system information pages. Select the an icon to view the relevant pages.*




| | |
|---|---|
| System Information | Select to open the System menu. System information will be displayed. Refer to System Settings->System for guidance on the information available. |
| Software Reference | Select to open the Software Reference menu. Software information will be displayed. Refer to System Settings->System->Software Menu for guidance on the information available. |
| General Information | Select to open the General Information menu. This menu details the current recording profile in operation i.e. Set, Unset or Override.<br>Currently enabled features are also shown. Features are enabled via the Features menu (System Settings->Features).<br>Installed drive data is also shown. |
| Record Details | Select to open the Record Details menu. For each camera, the camera type and class is shown, plus whether it is currently recording. The recording profile for each camera is also detailed. Record settings can be configured for each camera via the Record Profile menu (Record Settings->Profile Record). |

Dedicated Micros ©2010

| | |
|---|---|
| Turbo Mode Profiles | Select to open the Turbo Mode Profiles menu. This menu provides detailed information on the camera record settings when the unit is configured to operate in Turbo Mode. Note that when the unit is not operating in Turbo Mode, no information will be displayed. Refer to the Profile Record menu (Record Settings->Profile Record) for further information on the Turbo Mode function. |
| Codec Loading | Select to open the Codec Loading menu. This menu details the demands placed on each codec in the form of CIF Usage (per sec) and Bitrate Usage (kbps). The 'Maximum bitrate per codec' and the 'Maximum CIFS per codec' sections highlight the maximum loading capabilities for each codec. When these capabilities are breached, the attributing record profile will be highlighted 'Red'. Should the codec's capabilities be breached while the unit is operating in Turbo Mode, the entire codec's column will be highlighted 'Red' (as there is only one record profile in Turbo Mode). |

***IMPORTANT:*** *The 'Status' information bar will provide valuable information on whether the unit should be operating in Turbo Mode or not.*

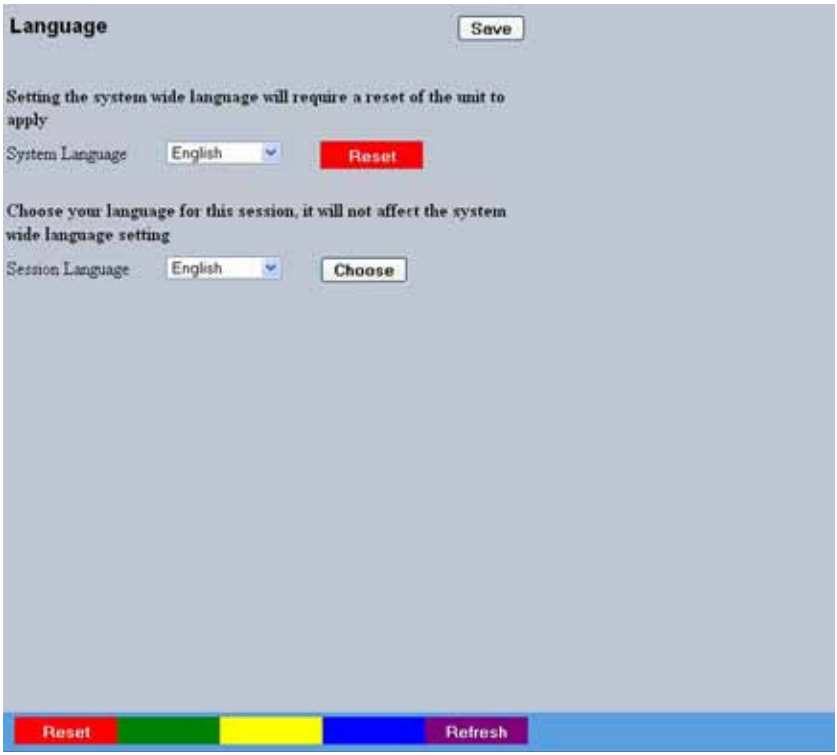
| | |
|---|---|
| Camconfig Details | Select to open the Camera Attributes menu. This menu provides detailed information on the type of camera i.e. analog or IP and for IP cameras, the supported resolution and capabilities. |
| Capabilities | Select to open the Capabilities menu. This menu details the function capabilities of your unit. |
| UI Information | Select to open the UI (User Interface) menu. This menu details basic information regarding your unit. The java applet path is also shown. The default location will always be the applet installed on the unit. If accessing multiple units via a remote connection, all can be assigned the same Viewer applet. This will lessen the load time required when accessing different DVRs/Servers. Refer to the Viewer Defaults menu for further guidance (Display Settings->Viewer Defaults). |
| Profile Record Tables | Select to open the Profile Record Tables menu. This menu thoroughly details the preconfigured recording settings. |



Dedicated Micros ©2010

# Language

*This menu allows the system language to be set. Changing the System Language will effect all menu pages. If required, the language can also be changed for the current session only.*



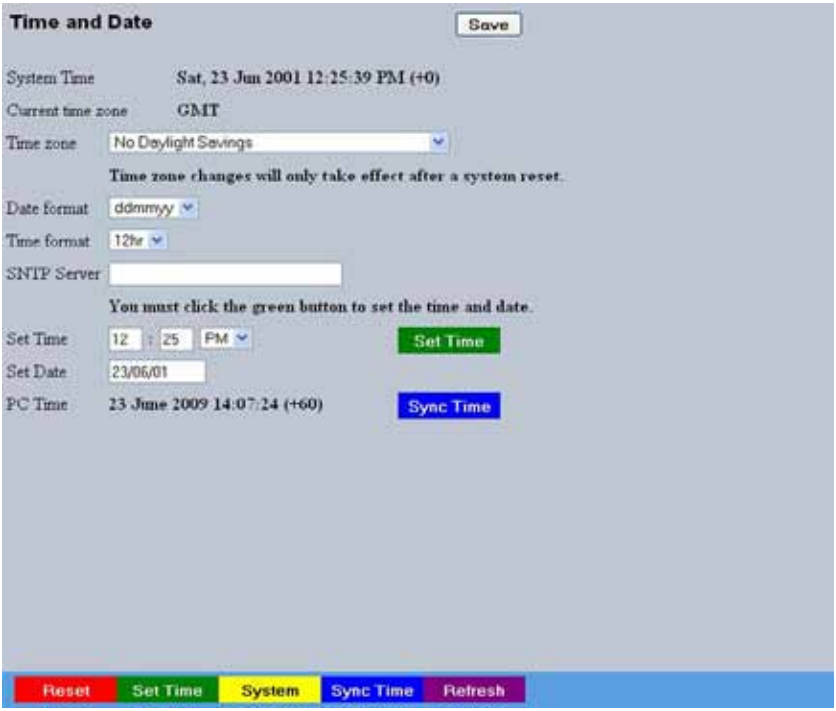

| | |
|---|---|
| System Language | Select to change the system language setting. |
| Reset (Red) | Select to reset the unit. |

***Note:*** *The unit MUST be reset to implement system language changes. Refer to System Settings->Maintain for guidance on resetting the unit.*

| | |
|---|---|
| Session Language | Select to change the language settings for the current session only. |
| Choose | Select to immediately activate session language changes. |

# Time and Date

*This menu allows the time and date to be set on the unit. Required timezone information can also be established and the unit time synchronised to that of the PC being used to view the webpages.*




| | |
|---|---|
| System Time | The current system time and date is displayed. |
| Current Time Zone | Displays the currently selected time zone settings. |
| Time Format | As default, the time displayed is in 12 hour format. This can be changed to 24 hour if required. |
| Date Format | As default, the date is entered dd/mm/yy. It can also be displayed as mm/dd/yy or yy/mm/dd. |
| Set Time | Enter a current time for the unit. |
| Set Date | Enter a current date for the unit. |
| Set Time (Green) | When current time/date as been entered, select this button to implement changes. |
| Time Zone | Select the relevant timezone offset from the accompanying drop down menu. |
| SNTP Server | A Simple Network Time Protocol (SNTP) server allows external devices to connect and set their current date and time settings to that of the SNTP. If required, enter the SNTP server IP address here. |

***Note:*** *It is recommended that an SNTP server is configured. Suitable networked SNTP servers can be found here: http://support.ntp.org/bin/view/Servers/NTPPoolServers*

*Alternatively most DHCP and DNS servers also run SNTP services. Contact your system administrator for further assistance.*



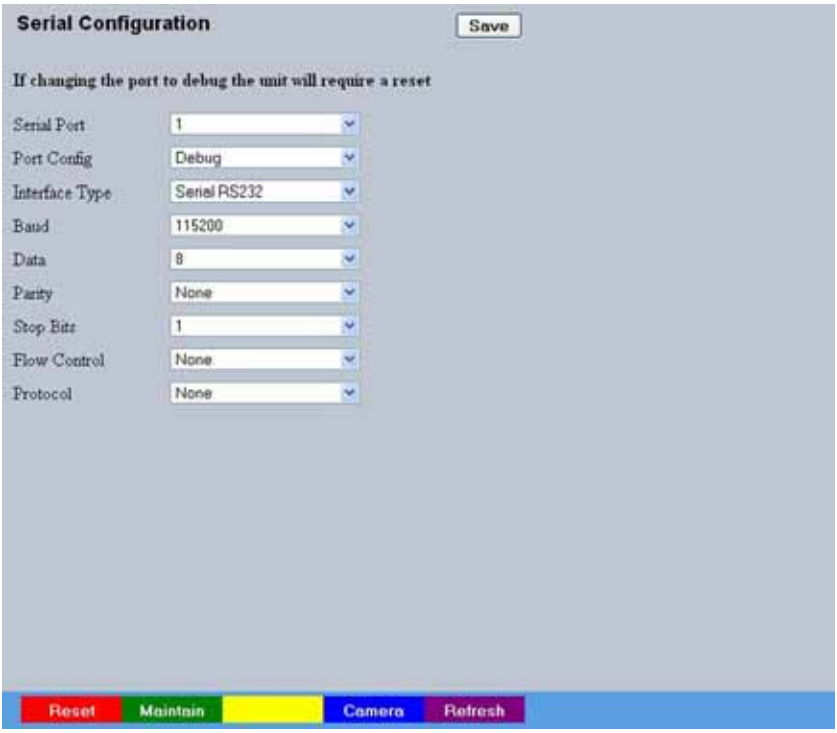
Dedicated Micros ©2010

| | |
|---|---|
| PC Time | Displays the system time of the PC currently being used to view the webpages. |
| Sync Time (Blue) | Use this button to synchronise the time of the unit to that of the PC being used to view the webpages. |

***Note:*** *The PC Time and Sync Time options will only be available if viewing the menu via the webpages.*

# Serial Ports

*This menu allows configuration of the unit's Serial ports. Refer to 'Installing the Unit' for installation information.*




| | |
|---|---|
| Serial Port | These are the four serial ports available. |
| Port Config | The serial ports can be configured to specific uses. Select from: |

| | |
|---|---|
| None | Switches port off |
| Debug | Sets port for serial communications |
| PPP | Sets port for Point to Point Protocol |
| Telem | Sets port for Telemetry purposes |
| Comm | Sets port for Comms purposes |
| EPOS | Sets the serial port for connection to an EPOS (Electronic Point Of Sale) device |

***Note:*** *It is recommended that Serial port 1 be set for 'Debug' operations.*

| | |
|---|---|
| Interface Type | Choose the type of serial interface being used. Select from RS232, RS485 or RS422. |
| Baud/Parity/Data/Stop/Flow Control | These options allow the Serial port communication settings to be configured. |

***Note:*** *When a telemetry protocol is selected, these settings will default to pre-determined values and should not normally be altered.*



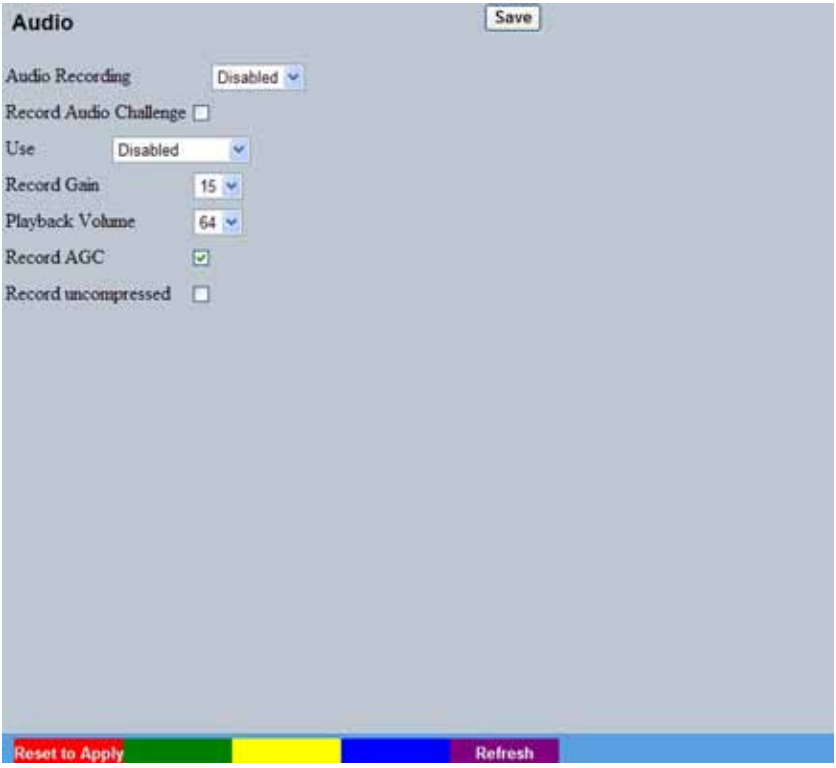
Dedicated Micros ©2010

| | |
|---|---|
| Protocol | This is a drop down list of serial telemetry protocols supported by the unit. |

***Note:*** *Refer to 'Appendix G' for a full list of supported telemetry protocols.*

# Audio

*The Audio menu allows settings for the bi-directional audio channels to be edited. Audio can be recorded from camera inputs via input 2. Challenge audio i.e. originating from an Operator using NetVu ObserVer at a Remote Video Receiving Centre (RVRC) can be recorded via input 1. This combined audio is then available on Audio Output 1. Refer to 'Installing the SD Advanced for audio hardware installation information.*




| | |
|---|---|
| Audio Recording | Select 'Enable' to activate Audio recording. Note that this is a global action which when Enabled, will result in all audio received by the unit being recorded to the HDD. |
| Record Audio Challenge | Select this option to record an audio challenge received via an IP connection i.e. originating from a remote client. |
| Use | This option determines what the operator will hear from Audio Output 2 during playback.<br>When set to 'Disabled', nothing will be heared via Audio Output 2.<br>When set to 'Local Playback' the operator will hear the audio received from Audio Input 1.<br>When set to 'Challenge', the operator will hear the recorded audio challenge that was sent from a remote client over IP. |



Dedicated Micros ©2010

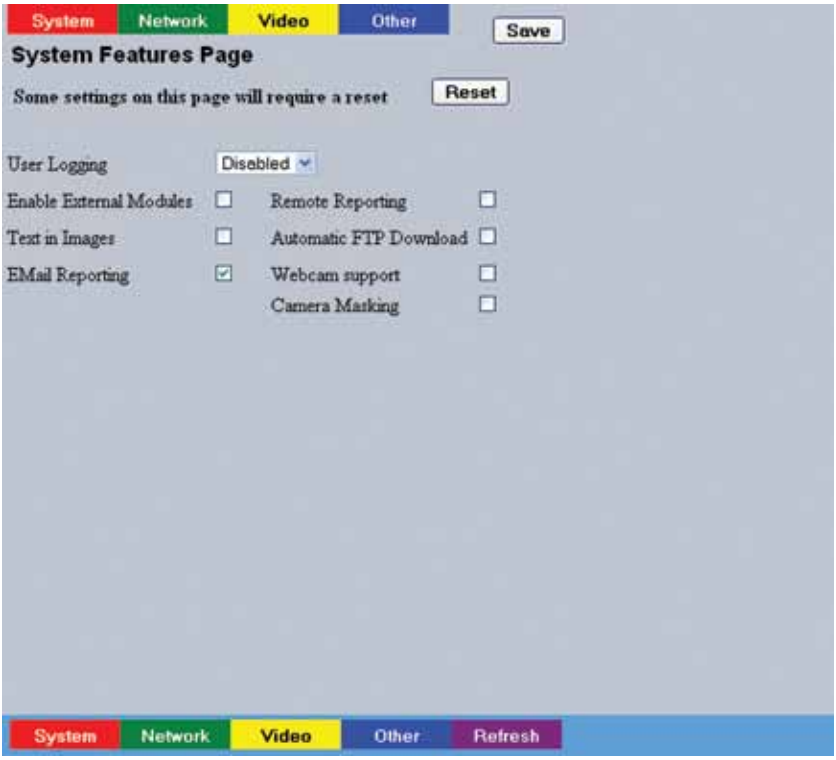
| | |
|---|---|
| Record Gain | This option allows the Record Gain level to be set. This is the base setting from which the AGC (Automatic Gain Control) will operate. Select from 1 to 15. The default and recommended setting is 15. |
| Playback Volume | Select a volume setting between 1 to 64 for audio playback. |
| Record AGC | Select this option to activate the AGC function. AGC helps produce a better quality recording by removing background noise/distortion. |
| Record uncompressed | Select this option to record audio in an uncompressed format. |

***Note:*** *Recording in uncompressed format will significantly increase the disk space used.*

# Features

*These menus enables the activation of numerous system features. Features are grouped within four sub-menus: System, Network, Video and Other.*

## System




| | |
|---|---|
| User Logging | Enable this option to activate User Logging. Refer to 'Appendix C' for further information regarding the User Logging function. |
| Enable External Modules | Select to enable any connected RS485 alarm modules. |
| Text in Images | Select this option to activate the Text in Images function, refer to 'Text-Text In Image' for more information. |

***Note:*** *When de-selected here, the 'Text in Image' menu will no longer be displayed in the menu tree.*

| | |
|---|---|
| Email Reporting | Select this option to activate the Email Reporting function, refer to 'Network Settings->Email' for more information. |

***Note:*** *When de-selected here, the 'Email Reporting' menu will no longer be displayed in the menu tree.*

| | |
|---|---|
| Remote Reporting | Select this option to activate the Remote Reporting function, refer to 'Network Settings-Remote Reporting' for more information. |

***Note:*** *When de-selected here, the 'Remote Reporting' menu will no longer be displayed in the menu tree.*



Dedicated Micros ©2010

| | |
|---|---|
| Automatic FTP Download | Select this option to enable automatic FTP downloads to upgrade the unit and/or the webpages, *refer to 'Network Settings-FTP Download' for more information*. |

***Note:*** *When de-selected here, the 'Automatic FTP Download' menu will no longer be displayed in the menu tree.*

| | |
|---|---|
| Webcam Support | Select this option to activate the Webcam function. This allows the unit to emulate a webcam and send image from one video feed in webcam format, *refer to 'Network Settings-Web Cam' for more information*. |
| Camera Masking | Select this option to activate the Camera Masking function. When activated, any attempt to cover a connected cameras lens will be noted and an alarm event will be logged. |

## Network

| | |
|---|---|
| Secondary Web Port | If the default port setting for web serving has already been allocated, it is possible to configure a second port number i.e. the secondary web port can be set to 8000 if the default web port (80) is blocked by the network or firewall. |
| Telem UDP Port Selection | Select 'Automatic' to enable the unit to select a suitable port for telemetry purposes.<br>Select 'Default' to use the default port settings (1025).<br>Select 'User Defined' to use settings entered in the 'Telemetry Port' option. |



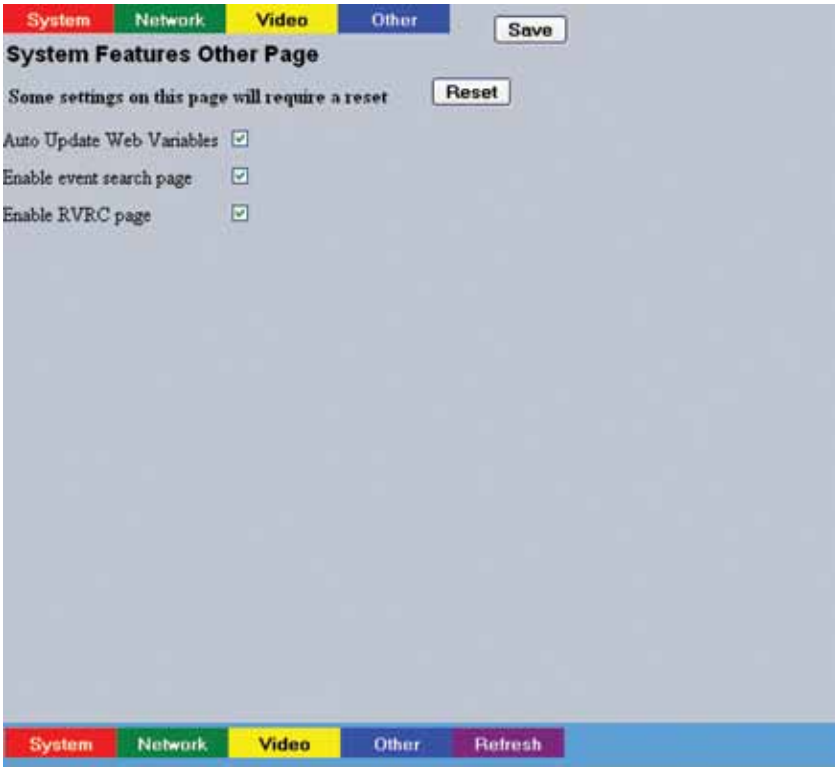
Dedicated Micros ©2010

## Video

| | |
|---|---|
| Detected Video Standard | The unit automatically detects the video standard being used i.e. PAL/NTSC. |
| Deinterlace mask | When Enabled, this option will improve the appearance of moving objects by applying a deinterlace mask that minimises the comb effect that can be visible when recording high motion scenes in 4CIF mode. It is recommended that this option be enabled when recording in 4CIF mode. |
| Comb Filter | Enable this option to activate the Comb Filter function. Comb Filter can help improve the fine details of a video signal image by filtering the luminance and chrominance separation process. |
| Disable Transcoding | Select to disable the unit's transcoding capabilities. In normal circumstances this should always remain enabled, however it can be useful to disable the feature when conducting maintenance. |
| Partial Full Duplex | Select to enable the Partial Full Duplex option. This feature is only relevant when viewing in mulitiscreen mode above quad. When selected (and viewing in MPEG mode/mulitscreen above quad); only the recorded I frames are displayed and not the P frame data. |

Dedicated Micros ©2010

## Other




| | |
|---|---|
| Auto Update Web Variables | Configures the unit to update all system variables required for an automatic upgrade without requiring confirmation. Do not check this box if you run a customised applet. |
| Enable Event Search | Select to enable the Event Search option. When enabled, the option will appear within the Configuration Menu tree. Refer to 'Navigating the Configuration Menus->Event Search' for further details. |
| Enable RVRC page | Select this option to activate the RVRC Remote Set/Unset/ Override function, refer to 'Record Settings-RVRC' for more information. |

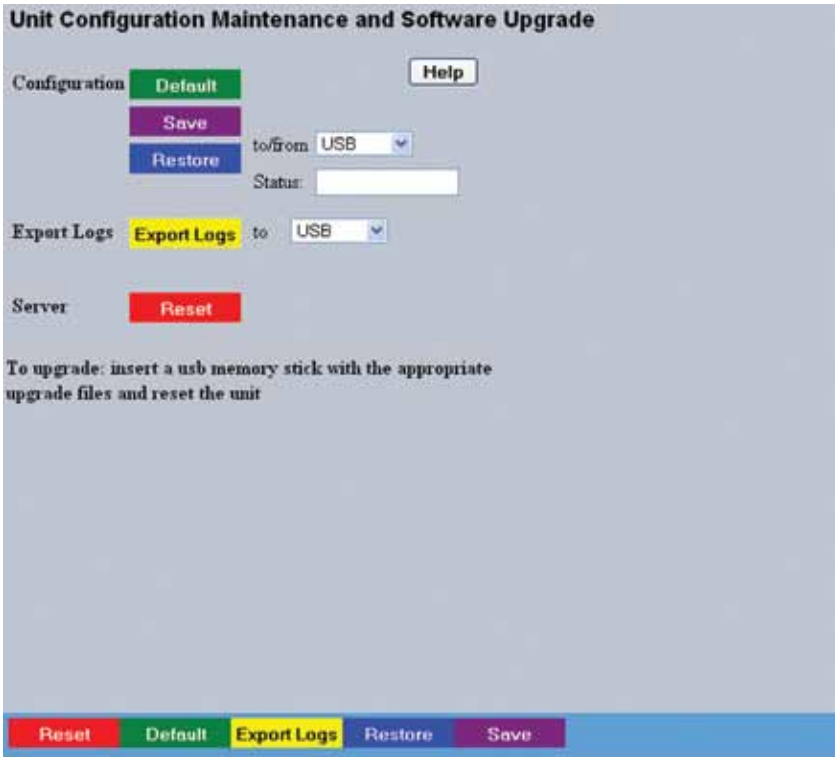
***Note:*** *When de-selected here, the 'RVRC' menu will no longer be displayed in the menu tree.*



Dedicated Micros ©2010

# Maintain

*This menu allows the unit to be reset and a software upgrade to be performed via an inserted CD-R/ DVD-R or a connected USB device. Current unit settings can also be saved for future use and previously saved settings restored.*




**Configuration**

| | |
|---|---|
| Default (Green) | Select to return the unit to its factory default settings. |

***Note:*** *Selecting the Default button will cause the system to reboot.*

| | |
|---|---|
| Save (Purple) | Select to save current unit settings to the selected media. |
| Restore (Blue) | Select to restore previously saved settings from the selected media. |

***Note:*** *Selecting the Restore button will cause the system to reboot.*

| | |
|---|---|
| To/From | Select the relevant media device to save to or restore from i.e. USB or CD-R/DVD-R. |

**Export Logs**

| | |
|---|---|
| Export Logs (Yellow) | Select to export all Logged data to a connected external device. |
| To | Select the relevant media device to save to export to. |

Dedicated Micros ©2010

**Server**

Reset (Red) Select to cycle the power to the unit.

***IMPORTANT:*** *To upgrade the unit, insert a media device containing relevant software upgrades and select 'Reset'.*

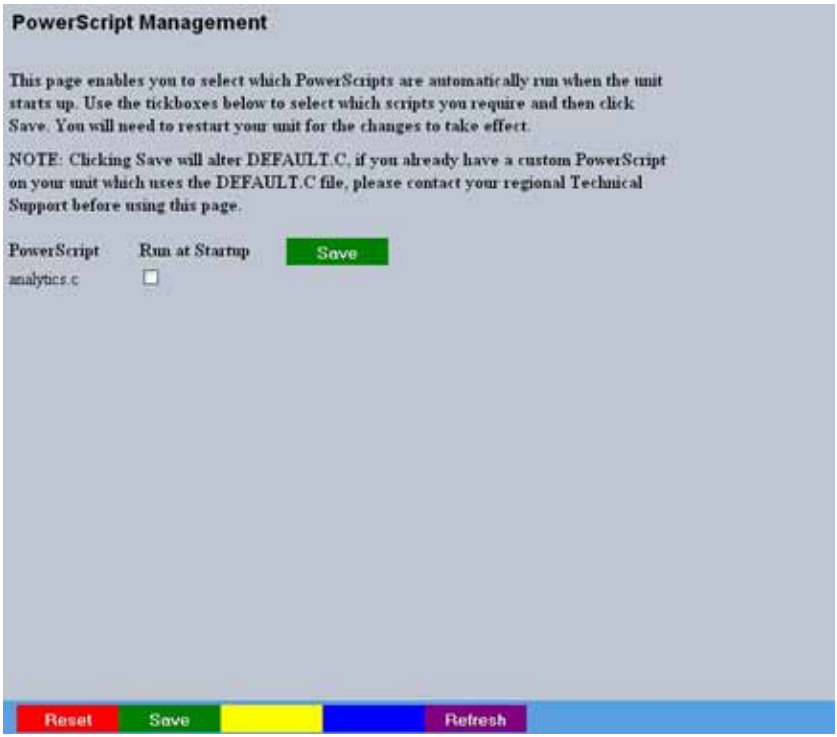
***Note:*** *For the latest software upgrades, please refer to the Dedicated Micros website: www.dedicatedmicros.com*



Dedicated Micros ©2010

# PowerScript Mgmt

*This menu enables installed PowerScripts to be activated/deactivated on start-up. Use the tickbox(es) to select/deselect installed PowerScripts, then select Save (Green). A system reset will be required for the changes to take affect.*


PowerScript Management
This page enables you to select which PowerScripts are automatically run when the unit starts up. Use the tickboxes below to select which scripts you require and then click Save. You will need to restart your unit for the changes to take effect.
NOTE: Clicking Save will alter DEFAULT.C, if you already have a custom PowerScript on your unit which uses the DEFAULT.C file, please contact your regional Technical Support before using this page.
PowerScript
Run at Startup
Save
analytics.c
Reset
Save
Refresh

***Note:*** *Changes this page will alter the 'Default.C' file. If you already have a custom PowerScript on your unit which uses Default.C, please contact Dedicated Micros Technical Support for guidance Tel: +44 (0) 845 600 9502 for further guidance.*

# Display Settings

*The menus under the Display Settings heading allow the unit's Viewer display settings to be altered and User Account details to be viewed and changed.*

*The Remote Monitors page allows monitors not physically connected to the unit to view camera images received by the unit.*

*The Viewer Defaults page allows the Viewer menu settings to be configured.*

*The Display page controls how the local monitors present information. They control whether text will be displayed on the Main or Spot monitors, the colour of that text, and how long cameras being displayed in sequence will be shown on screen.*

*The Map Config page allows images to be imported and used as maps displayed in the Viewer menus. Hot spots can be added to allow quick navigation to individual cameras.*

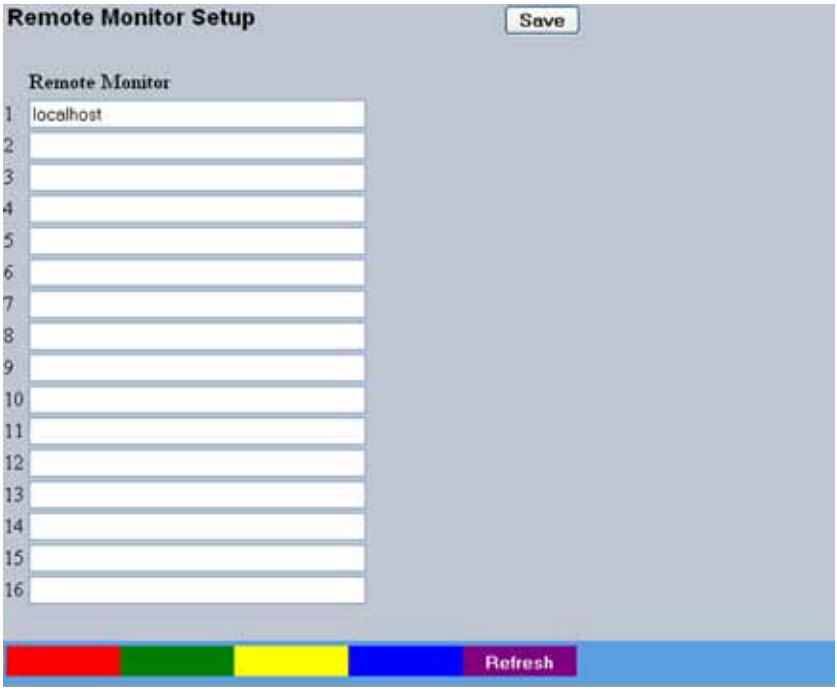
*The Map Data page allows Map Config information to be saved for future use. Previously saved data can also be uploaded.*

*The User Accounts page helps protect configuration procedures by limiting access to specific users via accounts and passwords.*


Dedicated Micros ©2010

# Remote Monitors

*This menu allows monitors not physically connected to the unit to view camera images received by the unit. The IP address of the server connected to the monitor (or video wall) is required. Cameras can then be selected via the remote monitor*




Up to 16 remote monitors (or video walls) can be configured. Enter the IP address of the server connected to the monitor.

# Viewer Defaults

*This menu allows configuration of settings for the Viewer function. Refer to 'Operating The Viewer' for more information regarding this feature.*

Default settings can be configured for accessing the Viewer function via a local monitor and also remotely via a network connection. Local settings also determine the quality of video streams received from a remote client i.e. in Remote Monitor operation. Note that this does not affect live or playback images originating from local system cameras.

| | |
|---|---|
| Default Image Format | Images from connected cameras can be displayed in either JPEG or MPEG format. |
| Default Full Req | Images displayed full screen in the Viewer menus can be shown in either High Medium or Low resolution. |
| Default Quad Req | Images displayed in Quad format in the Viewer menus can be displayed in either High Medium or Low resolution. |
| Default Multi Req | Images displayed in Multi format in the Viewer menus can be displayed in either High Medium or Low resolution. |
| Startup Multi Display | When accessing the Viewer function, select the display format which will initially be displayed. |
| Startup Multi Display | When accessing the Viewer function, select the display format which will initially be displayed. |



Dedicated Micros ©2010

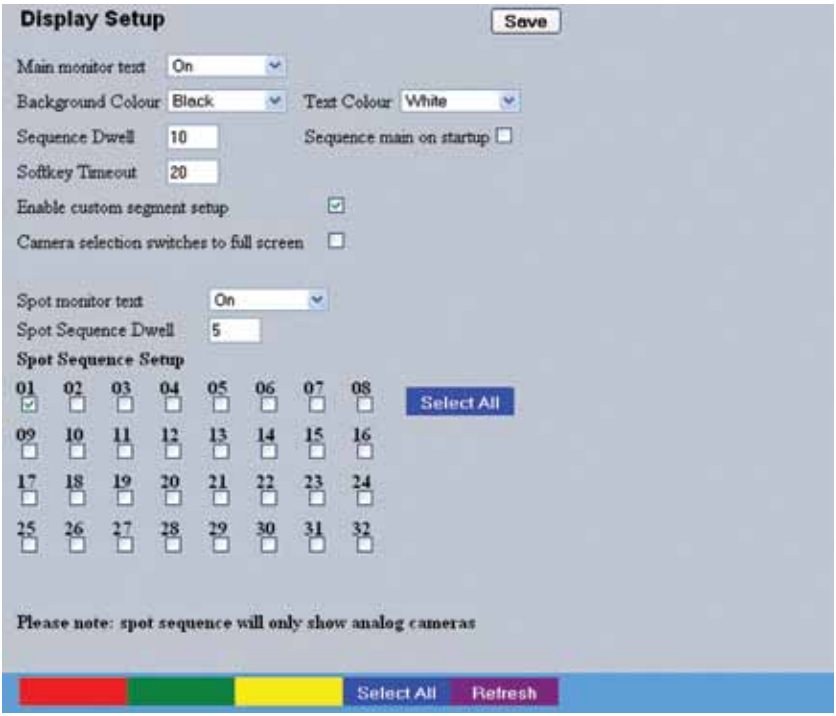
| | |
|---|---|
| Startup Camera | When accessing the Viewer function, select the camera image which will initially be displayed. If one of the multi display formats has been selected via the 'Startup Multi Display' option, the camera channel selected here will be displayed in first (top left) position. Subsequent camera channels will be displayed in sequential order. |
| Video Output mode | Select the display output that best suits the viewing monitor. Typically PAL Default is most suited for a CRT monitor.<br>Select from:<br>Safe Mode<br>PAL Default<br>PAL Reduced<br>HD Default<br>HD 4X3 |

***Note:*** *It will be necessary to reboot the unit to implement any change to the Video Output Mode. The unit can be rebooted via the Reset (Red) option.*

| | |
|---|---|
| Applet Location | The location of the unit's Viewer menu applet is displayed. The default location will always be the applet installed on the unit. If accessing multiple units via a remote connection, all can be assigned the same Viewer applet. This will lessen the load time required when accessing different DVRs/Servers. For example, if a local unit and a remote DVR are to be accessed, it is possible to set the Applet location for both DVRs as the local unit. If viewing the unit remotely, Dedicated Micros provide a remote applet. This remote applet can be selected via the 'Set Location' option. The applet is located on the website (www.dedicatedmicros.com/software_release/index_firmware.php). Due to possible bandwith restrictions on the network the DVR is located, using this remote applet may improve data transfer speeds. |
| Set Location | Select the applet location. Choose from 'Default location' i.e. the applet installed on the unit; or the 'website' option i.e. the remote applet. |
| Reset (Red) | Select to reset the unit and implement any changes made to the 'Video Output mode' or 'Applet Location' fields. |

# Display

*This menu allows configuration of monitor settings used when viewing camera images and text data.*




| | |
|---|---|
| Main monitor text | It is possible to select text to be displayed on the main monitor. The text displayed will include; time, date, mode of operation (Set, Unset or Override), camera number and camera title. |
| Background Colour | A black background appears by default around the text. It is possible to change the colour of this background. Select from the options available in the drop down list. |
| Text Colour | The colour of the displayed text can be changed. Select from the options available in the drop down list. |
| Sequence Dwell (secs) | The sequence dwell time can be set from 5 to 99 seconds. The dwell time is the period a camera's images are displayed before switching to the next camera in the sequence. |
| Sequence main on startup | Select to sequence live views from all connected cameras on the main monitor upon system start-up. |
| Enable custom segment setup | Select to activate the custom segment setup feature. When selected, a user can configure a Quad or Multiscreen layout via the Viewer menu. The configured layout can include any camera in any available segment. |
| Camera selection switches to full screen | Select to auto switch to full screen mode any camera channel selected from multi-display (selected via the Viewer feature). |

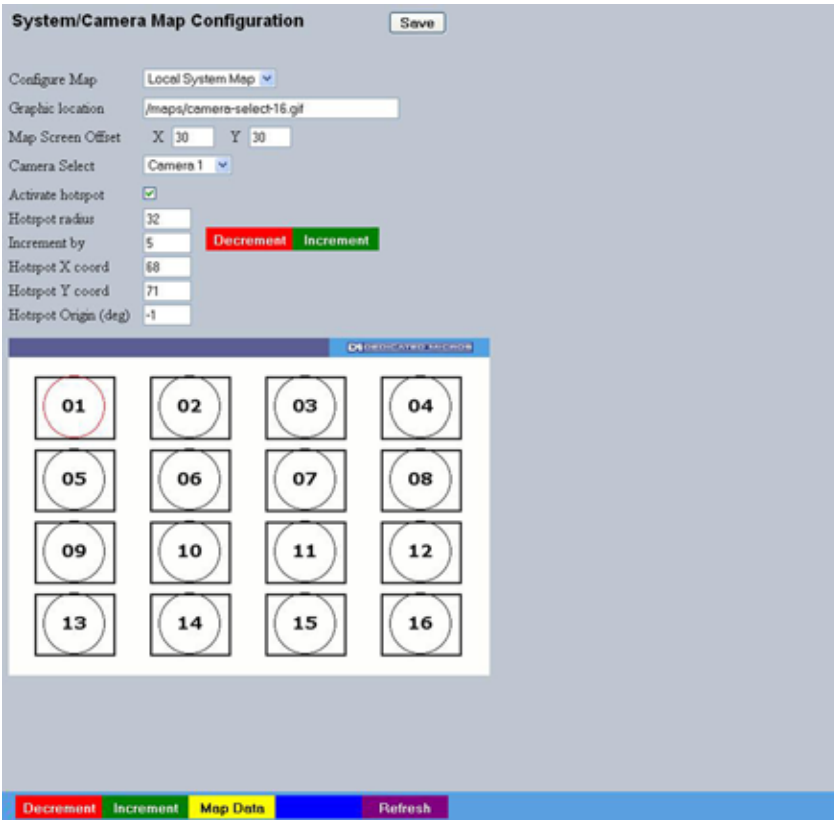


Dedicated Micros ©2010

| | |
|---|---|
| Spot monitor text | It is possible to select text to be displayed on the spot monitor. The text displayed will include; time, date, camera number and camera title. |
| Spot Sequence Dwell | The spot sequence dwell time can be set from 1 to 99 seconds. The dwell time is the period a camera's images are displayed on a connected spot monitor before switching to the next camera in the sequence. |
| Spot Sequence Setup | All of the unit's camera input channels are shown. To include any of these camera channels in the spot monitor sequence, selected the accompanying tickbox. |
| Select All (Blue) | Select to add all available cameras to the Spot Monitor Sequence. |

# Map Config

*This menu allows images to be imported and used as maps that can be displayed in the Viewer Menus. The map can then have hotspots added to allow quick navigation to individual cameras. An overview 'System Selection Map' can also be added to navigate between different systems.*




| | |
|---|---|
| Configure Map | Leave as 'Local System Map'. This is the map from which connected cameras can be accessed. |
| Graphic Location | Enter the location of the relevant map graphic, including the full I.P address of the server holding the map. The map image will be displayed if linking is successful. The linked map can be in gif or jpeg format and should not exceed 500 by 350 pixels. |
| Map Screen Offset | These coordinates represent the top left corner of the map graphic as displayed in the Viewer menu. |
| Camera Select | Select which camera is to be linked to the created hotspot. |
| Activate Hotspot | Select to activate and display the camera hotspot. |
| Hotspot Radius | Enter the radius (in pixels) of the hotspot. |
| Increment by | If using the Decrement (Red) or Increment (Green) buttons, enter the size (in pixels) that the hotspot will increase/decrease. |
| Decrement (Red) | Select to reduce size of hotspot. |
| Increment (Green) | Select to increase size of hotspot. |



Dedicated Micros ©2010

| | |
|---|---|
| Hotspot X coord | Use to position the centre of the hotspot along the X axis e.g. entering 20 would place the hotspot centre 20 pixels from the left edge of the map. |
| Hotspot Y coord | Use to position the centre of the hotspot along the Y axis e.g. entering 20 would place the hotspot centre 20 pixels from the bottom edge of the map. |

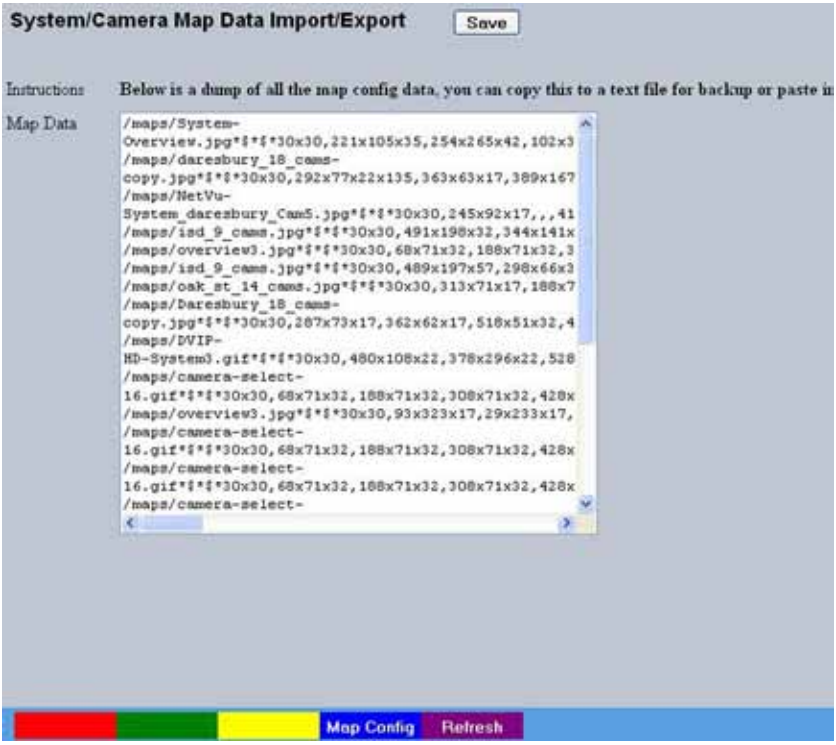
***Note:*** *The hotspot can also be positioned by clicking directly on the map.*

| | |
|---|---|
| Hotspot Origin (deg) | This option should be used when the hotspot relates to a Dedicated Micros Oracle Dome camera. Clicking the hotspot will send the Oracle Dome camera to a pre-determined view (absolute positioning). However if the dead centre of the hotspot is selected, the camera will be viewed from its current location.<br>The absolute positioning point will depend on the data entered here. A setting of '0' would result in the camera facing its Original (base) position. To change the preset position, enter a number between 1 and 360. A setting of 20 would set the preset position to 20 degrees to the right of its 'origin' position, 180 would send it to face in the opposite direction (of its base position) . Refer to the 'Viewer Menus-Program menu' for information on establishing an Origin position for a PTZ camera. |

# Map Data

*The Map Data menu allows Map Config data to be Imported/Exported. This enables map data to be saved and stored for future use, or used between multiple units.*

***Note:*** *The Map Data menu will only be available when viewing the menu pages remotely i.e. via the webpages.*




To save map data, highlight and copy all text displayed in the Map Data text window, then save this data as a text file.

To import data, copy relevant text from an external location and paste into the Map Data text window. When the menu is exited, this data will be used as the Map Config settings.

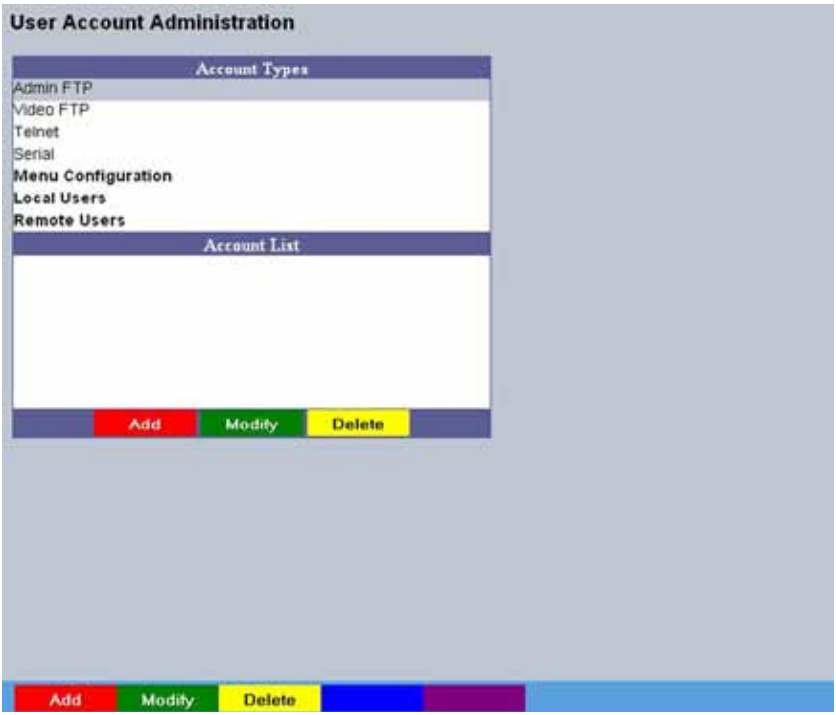
***Note:*** *If importing data, remember to first save any current map data as required.*



Dedicated Micros ©2010

# User Accounts

*The unit can protect configuration procedures by limiting access via usernames and passwords.*




Account Types

The available account types for which users and passwords can be assigned privileges are:

- Admin FTP

  Assigning username and password requirements for the Admin FTP function will limit access to the unit via an FTP connection.

- Video FTP

  Assigning username and password requirements for the Video FTP function will limit access to the Video FTP archiving feature (used with NetVu ObserVer).

.

- Telnet

  Assigning username and password requirements for Telnet connections will limit Telnet access to the unit (Telnet can be used to upgrade the unit).

- Serial

  Assigning username and password requirements for Serial connections will limit access via a Serial link.

Dedicated Micros ©2010

- Menu Configuration

  Assigning Menu Configuration access privileges will limit access to the Configuration menus when viewed locally. When implemented, the user will be prompted for a username and password before access to the Configuration menus (via the main menu) will be granted.

- Local Users

  Assigning Local Users access privileges will limit access to the Viewer pages for local users. When implemented, the local user will be prompted for a username and password before access to the Viewer pages (via the main menu) will be granted.

- Remote Users

  Assigning Remote Users access privileges will limit access to the Viewer pages for remote users. When implemented, the remote user will be prompted for a username and password before access to the Viewer pages (via the main menu) will be granted.

When granting access privileges to Local and Remote Users, it is possible to limit access to specific cameras. Using the Camera Selection segment of the Add New Account menu, enter those cameras for which access will be permitted. Select the cameras in accordance with the input channel they're connected to on the rear of the unit. For example, if wanting to allow access to camera 1 to 3 inclusive, enter: 1-3. If wanting to grant access to cameras 1,3 and 6, enter 1,3,6. If no camera data is entered, access will be allowed to all connected cameras in both live and playback modes.

***Note:*** *There are no default usernames and passwords for any of the Account Types. If none are assigned, access will be granted to all users and no request for a username and password will be made.*

| | |
|---|---|
| Account List | When an Account Type is highlighted, details of users with access will be displayed. |
| Add | Highlight an administration feature i.e. Serial and select 'Add'. Enter the new User Name and Password. That user's name will now be displayed in the account list. |
| Modify/Delete | To modify or delete a user's settings, highlight the user in the list and press the relevant button to Modify or Delete. Control. Press the right directional button from the menu tree to access the Account List. |

***IMPORTANT:*** *If passwords are implemented and then forgotten, it is likely the unit will need to be returned to Dedicated Micros for unlocking.*



Dedicated Micros ©2010

# Camera Settings

*The Camera Settings menus allow configuration of cameras connected to the unit. Refer to the individual menus for further details.*

*The Camera Setup page allows the quick configuration of all connected local camera channels (with a dynamic preview available).*

*The Camera Overview menu details the general settings assigned to each of the local camera channels.*

*The IP Streams menu allows the selection of High, Medium and Low resolution settings for video sources originating from a network based source i.e. IP Server. These streams are configured on the remote device. This feature is predominately intended for use with 3rd party IP camera streams (connected via the 3rd party IP camera unlock feature).*

# Camera Setup

***This*** *menu allows the configuration of active camera channels.*

***IMPORTANT:*** *The menu options displayed will differ depending on the camera 'Type' and 'IP Mode' selected.*

***Note:*** *Ideally any setup options available locally on the camera should first be used to best obtain a suitable image quality.*

## Mono/Colour Camera

| | |
|---|---|
| Camera | Select a camera channel for review and adjustment. |
| Camera Nuisance Count | |
| Title | Assign a recognisable name to the camera. This will be displayed in all references to the camera in the both the Configuration and Viewer menus. |
| Type | The settings will default to 'Colour'. If Monochrome cameras are used, select 'Mono'. Selecting 'Mono' will remove colour patterning. Select' 'IP' for an IP Camera. If a particular channel is not in use or the camera has failed, select 'No Conn'. |

***IMPORTANT:*** *The menu options displayed will differ depending on the camera 'Type' selected here.*

| | |
|---|---|
| Fail Rep | Select this option to generate a Failure report in the event of camera connection failure. |

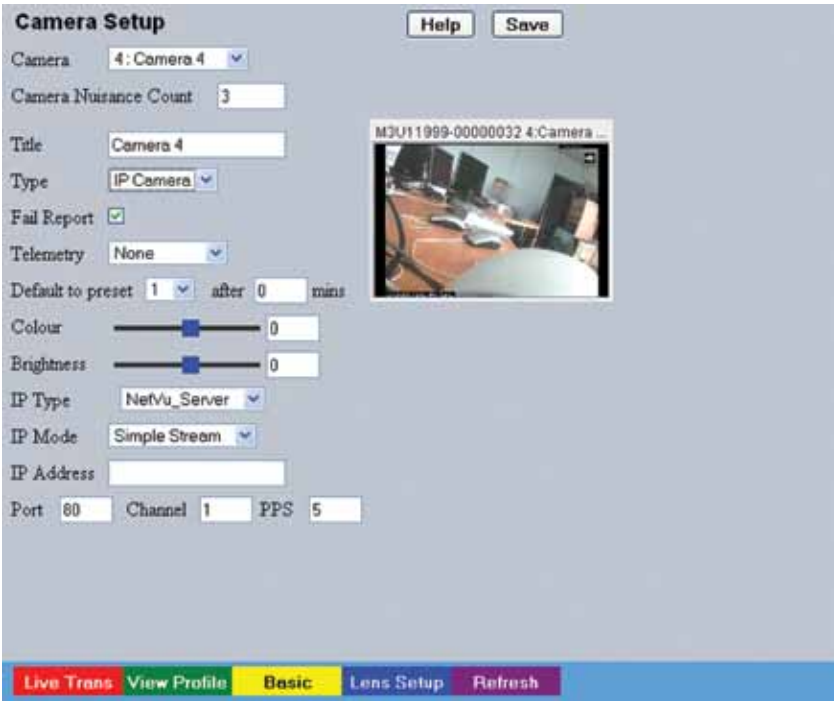


Dedicated Micros ©2010

| | |
|---|---|
| Termination | The unit will automatically terminate the camera input with 75Ω. This should be disabled if the video feed is looped through to another device. |
| Telemetry | If a telemetry capable camera is connected, the appropriate control protocol should be selected from the accompanying drop down list. Refer to 'Appendix G' for details of supported telemetry protocols. |
| Default to preset | If a telemetry camera has been assigned a preset position, select the chosen preset position here. Also enter the time period (in minutes) of inactivity which will result in the camera moving to its preset position. Refer to Viewer menus->Program Page for guidance on assigning camera presets. |
| Colour | Select a colour value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox. |
| Brightness | Select a contrast value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox. |

# IP Camera

*The following menu will be displayed when 'IP Camera' is selected. The menu allows the configuration of connected IP Cameras (cameras connected directly to a network broadcasting a digital video stream from an IP address). It can also connect to other NetVu Connected DVRs and treat one of the network feeds from that DVR as a digital video stream.*




| | |
|---|---|
| Camera | Select a camera channel for review and adjustment. |
| Camera Nuisance Count | |
| Title | Assign a recognisable name to the camera. This will be displayed in all references to the camera in the both the Configuration and Viewer menus. |
| Type | The settings will default to 'Colour'. If Monochrome cameras are used, select 'Mono'. Selecting 'Mono' will remove colour patterning. Select' 'IP' for an IP Camera. If a particular channel is not in use or the camera has failed, select 'No Conn'. |

***IMPORTANT:*** *The menu options displayed will differ depending on the camera 'Type' selected here.*

| | |
|---|---|
| Fail Rep | Select this option to generate a Failure report in the event of camera connection failure. |
| Termination | The unit will automatically terminate the camera input with 75Ω. This should be disabled if the video feed is looped through to another device. |
| Telemetry | If a telemetry capable camera is connected, the appropriate control protocol should be selected from the accompanying drop down list. Refer to 'Appendix G' for details of supported telemetry protocols. |


Dedicated Micros ©2010

| | |
|---|---|
| Default to preset | If a telemetry camera has been assigned a preset position, select the chosen preset position here. Also enter the time period (in minutes) of inactivity which will result in the camera moving to its preset position. Refer to Viewer menus->Program Page for guidance on assigning camera presets. |
| Colour | Select a colour value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox. |
| Brightness | Select a contrast value from -8 to +8 via the slidebar or enter a number directly into the accompanying textbox. |
| IP Type | Select the type of NetVu Connected source the camera stream is originating from. Select from:<br>'NetVu Server' - i.e. DVIP Server, DVIP RT, SD, SD Advanced, EcoSense.<br>'NetVu Gen 2' - i.e. DS2, BX2.<br>NetVu Camera' - i.e. the CamVu 2000 from Dedicated Micros.<br>'NetVu ANPR' - i.e. the HyperSense ANPR camera from Dedicated Micros. |
| IP Mode | Select the IP mode used to receive incoming IP data. Select from:<br>Simple Stream - Received IP streams are non-compressed and are viewed as configured on the originating source.<br>Recode Stream - When selected, the unit will recompress the incoming IP stream to the record profile settings established for this camera channel in the Profile Record menu (Record Settings->Profile Record). This feature is only accessable with 3rd party IP camera when the 3rd party IP camera license has been enabled.<br>Remote codec When selected, the unit will utilise the codec in the remote NetVu connected video server/camera as if it was directly connected inside the DVR. Thus the user can change Multimode profiles and perform additional activities such as VMD and Activity Detection as if the codec was an integral part of the DVR. If 'Remote codec' is selected, the loading on the unit's internal codecs will be reduced. |

***IMPORTANT:*** *The Remote codec option is only applicable for NetVu Connected cameras.*

***Note:*** *Additional IP cameras ( further to existing local camera channels) are remote codec only. Therefore any NetVu connected cameras will be applied above local camera level.*

*When 'Simple Stream' and 'Recode Stream' are selected via 'IP Mode', the following options will be available:*

| | |
|---|---|
| IP Address | Enter the URL address of the image source. |
| Port | If required, edit the port input data. This will default to 80 (HTTP). |
| Channel | If required, edit the channel input data. |
| PPS | Edit the PPS (Pictures per Second) recording settings. |
| Recode | Select to activate the recode option. |

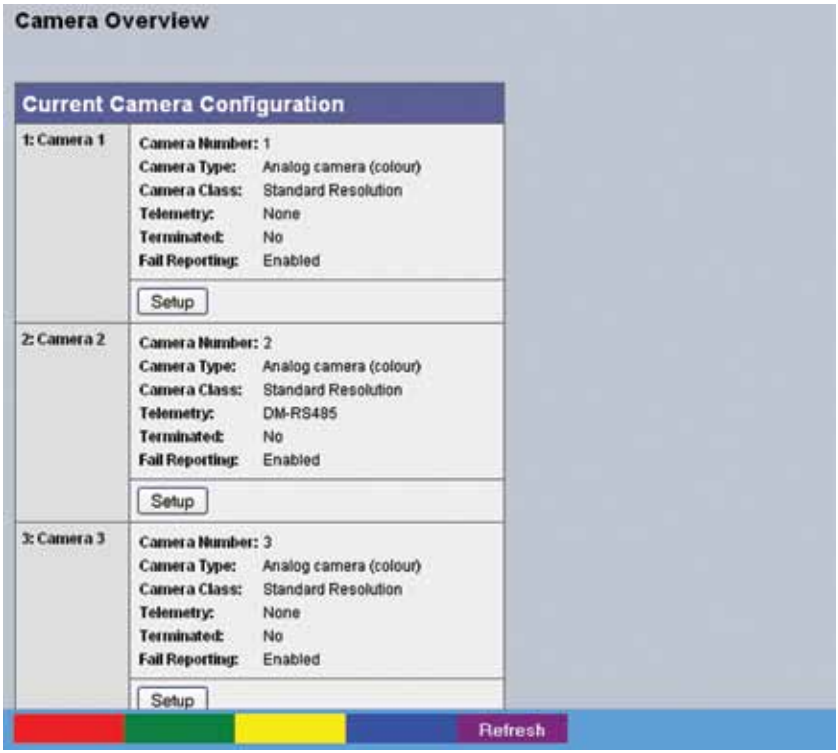
*When 'Remote Codec' is selected via 'IP Mode', the following options will be available:*

| | |
|---|---|
| IP Address | Enter the URL address of the image source. |
| Channel | If required, edit the channel input data. |

***Note:*** *For guidance on locating and changing an IP cameras username and password via an FTP connection; refer to Appendix F.*

# Camera Overview

*This menu details the general settings assigned to each of the local camera channels.*
*To edit the settings assigned to any of these cameras, select the 'Setup' option. This will open the Camera Setup menu, refer to Configuration menu->Camera Setup for further details.*



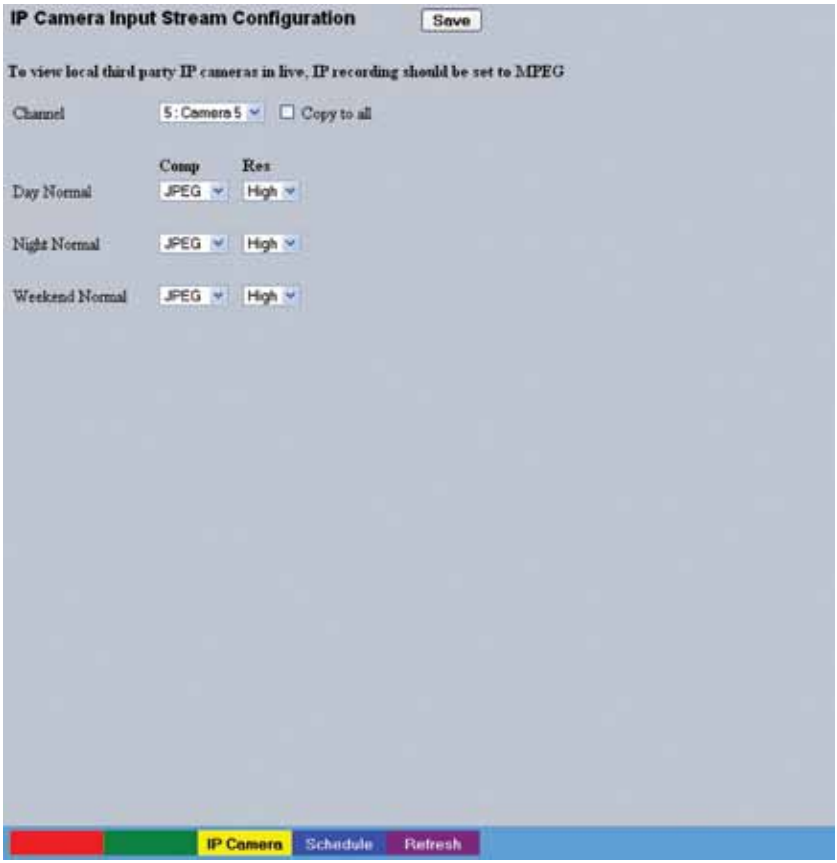



Dedicated Micros ©2010

# IP Stream Inputs

*The IP Streams menu allows the selection of High, Medium and Low resolution settings for video sources originating from a network based source i.e. IP Server. These streams are configured on the remote device. This feature is predominately intended for use with 3rd party IP camera streams (connected via the 3rd party IP camera unlock feature).*

***Note:*** *There is only normal 'non event' recording for connected IP cameras.*




| | |
|---|---|
| Channel | Select a camera channel for review and adjustment. Only those cameras designated as 'IP' in the Camera Setup menu will be available (Configuration menu:Camera Settings->Camera Setup). |
| Copy to all | Select this option to apply current settings to all connected cameras. |

The following options can be configured for Set, Unset and Override record profiles when operating under Normal (non Event) conditions. Refer to Configuration Menu:Record Settings->Profile Record for information regarding record modes.

| | |
|---|---|
| Comp | Select image compression format (MPEG or JPEG). |

| | |
|---|---|
| Res | For both MPEG and JPEG recording, select either High, Medium or Low quality resolution settings. |

***Note:*** *To view a local third party IP camera 'live', IP recording should be set to MPEG.*

| | |
|---|---|
| IP Camera (Yellow) | Select to open the IP Camera menu. |



Dedicated Micros ©2010

# Record Settings

*The Record Settings menus allow configuration of the unit's record functions. Record settings can be configured for normal operation, on alarm, by schedule and for set holiday and weekend periods. Selected video data can be saved and protected. Refer to the individual menus for further details.*

*The Record page allows the basic Recording settings to be edited.*

*The Profile Record page allows the recording configuration to be based on specific priorities. The record rate and quality can be customised to respond appropriately to the alarms and time of day. A high degree of control and flexibility is possible using these options.*

*The JPEG Trigger page allows configuration of the pre trigger feature (for cameras recording JPEG mode only). When enabled, the pre-trigger feature will buffer and store alarm recording prior to an event trigger*

*The Schedule page is used to configure the Timer Function, this enables the unit to automatically be put into set/unset mode at specific times on specific days.*

*The RVRC page is used to allow a user to temporarily force the System in to the configured set/unset/override mode. The user will be required to enter their name and all activity will be logged.*

*The Holiday and Weekend page enables Set mode to be activated for individual dates i.e. public holidays or weekends.*

*The Protect Video page allows previously recorded data to be protected and retained. If needed, all recording can be halted and saved video deleted.*

*The AoE Setup page allows configuration of the units ATA over Ethernet (AoE) function. AoE is a network protocol designed for simple high-performance access of storage devices over Ethernet networks. Importantly the external storage device must be located on the same network as the unit.*

# Record

*The unit has a range of pre-defined configurations available. As standard the unit can record at 6pps MPEG4 for up to 120 days (dependant on model). Alternatively the unit can be configured for 2pps JPEG recording on each camera or for* **Multi***Mode operation (note that this will result in the record duration being determined by the time period the unit is in alarm).*

| | |
|---|---|
| Days Recording | Displays the record duration possible using the current configuration. |
| Camera Settings | Choose the rate of non alarm recording to be used from the range of preset recording profiles. Select from Advanced Rate MPEG4 6pps, Advanced Rate JPEG 3pps or **Multi***Mode* recording. |
| Record Duration/Enhance Quality | The recording duration can be limited to a set number of days; allowing the recording quality to be enhanced for a shorter storage period. |



Dedicated Micros ©2010

# Profile Record

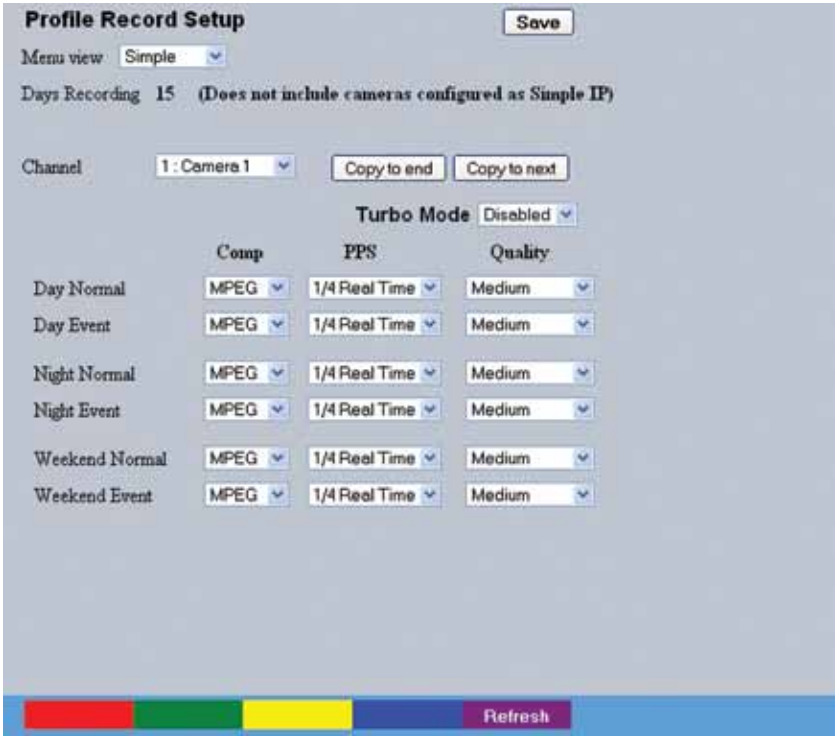
*It is possible to set the unit recording configuration based on specific priorities. The* **Multi***Mode recording feature offers the ability to set different recording rates, resolutions and compression formats across unset, set and override modes for each individual camera. By varying the quality, bit rate and file size of recorded images, the* **Multi***Mode function enables the recording capabilities of the unit to be greatly increased. The Profile record menu can be accessed in a Simple format or in Advanced mode. The Advanced mode offering greater opportunities to dynamically edit individual cameras recording capabilities.*

## *What is Turbo mode?*

Turbo mode allows video images from any analogue camera or 3rd Party IP recoded camera to be recorded and streamed at the maximum possible rate without the need to configure individual settings. Turbo mode must be set Globally and will result in MPEG record rates of 12.5pps@4CIF and 25pps@2CIF/CIF/QCIF.

***Note:*** *When selected, there will be only ONE configurable Record Profile across ALL cameras. The unit then matches the live transmission rate to the configured record rate. This enables a 'doubling' of performance. Only the 'Low' and 'Medium' Live Transmission profiles are available for configuration (Network Settings->Live Transmissions). Low and Medium transmission settings are configurable to allow video streaming over low bandwith IP connections and are limited to CIF for this purpose.*

## Simple Record




Menu View — Switch to the Advanced Profile Record menu.

IMPORTANT: If Turbo mode is 'Disabled' and record settings have been configured which will exceed the unit's Codec performance threshold. A warning message will be displayed informing the user that the 'Unit needs to be in turbo mode'. If the unit is currently in turbo mode and the currently configured record settings do not warrant turbo mode, a message will be displayed informing the user that 'At the current settings the unit does not need to be in turbo mode'.
The codec's performance thresholds are detailed in the About-Codec Loading menu (System Settings->Status->About->Codec Loading)

Days Recording — Displays the record duration possible using the current configuration.

Channel — Enables selection of a specific camera for editing.

Copy To End — Select to copy the current profile record settings to all camera channels.

Copy To Next — Select to copy the current profile record settings to the next camera channel.

Turbo Mode — Select to activate the Turbo mode function (see 'What is Turbo mode?' for a description of Turbo mode and its benefits).

Unset/Set/Override Normal Shows the recording profile used by the camera if no Timer Functions are applied and the camera is operating under Normal (non Event) conditions. Refer to the 'Schedules' section for further details.


Dedicated Micros ©2010

| | |
|---|---|
| Unset/Set/Override Event | Shows the recording quality that will be used by the camera during an Alarm or Event. Note that Set and Override schedules will be used only when Timed Schedules are applied. Refer to the 'Schedules' section for further details. |

***Note:*** *When Turbo mode is selected, there will be only ONE configurable Record Profile across ALL cameras. The unit then matches the live transmission rate to the configured record rate. This enables a 'doubling' of performance. Only the 'Low' and 'Medium' Live Transmission profiles are available for configuration (Network Settings->Live Transmissions). Low and Medium transmission settings are configurable to allow video streaming over low bandwith IP connections and are limited to CIF for this purpose.*

**Note:** *Unset, Set and Override modes can be given more recognisable titles i.e. Day, Night, Weekend via the Schedule menu (Record Settings->Schedule).*

| | |
|---|---|
| Comp | Select image compression format (MPEG, JPEG, H264). |
| PPS | The accompanying dropdown list allows the number of frames captured per second to be set.<br>The pictures per second (pps) option allows either 6, 5, 2, 1, 0.5, 0.25 or 0.1 pps to be recorded.<br>Pictures can also be recorded at 'Real Time' speed, '3/4 Real Time' or '1/2 Real Time'.<br>To disable record, choose the 'No Record' option.<br>Select 'User Defined' to use settings established in the Advanced Profile Record menu. |
| Quality | The accompanying dropdown list allows the quality of recorded images to be set. Select from Maximum, Very High, High, Medium, or Low. Select User Defined to use settings established in the Advance Profile Record menu. |

***Note:*** *The higher the Quality setting, the greater the storage space used.*

## Advanced Record

Menu View — Switch to the Simple Profile Record menu.

***Note:*** *When Advanced Record settings have been changed, it is not possible access the Simple Record menu until the newly configured Advanced Record settings have been applied. To do this, open the Record menu and select the 'Save' option. It will then be possible to return to the Profile Record menu and access Simple Record.*

IMPORTANT: If Turbo mode is 'Disabled' and record settings have been configured which will exceed the unit's Codec performance threshold. A warning message will be displayed informing the user that the 'Unit needs to be in turbo mode'. If the unit is currently in turbo mode and the currently configured record settings do not warrant turbo mode, a message will be displayed informing the user that 'At the current settings the unit does not need to be in turbo mode'.
The codec's performance thresholds are detailed in the About-Codec Loading menu (System Settings->Status->About->Codec Loading)

| | |
|---|---|
| Days Recording | Displays the record duration possible using the current configuration. |
| Channel | Enables selection of a specific camera for editing. |
| Copy To End | Select to copy the current profile record settings to all camera channels. |
| Copy To Next | Select to copy the current profile record settings to the next camera channel. |
| Turbo Mode | Select to activate the Turbo mode function (see 'What is Turbo mode?' for a description of Turbo mode and its benefits). |


Dedicated Micros ©2010

| | |
|---|---|
| Unset/Set/Override Normal | Shows the recording profile used by the camera if no Timed Schedules are applied and the camera is operating under Normal (non Event) conditions. Refer to 'Schedule' for further information. |
| Unset/Set/Override Event | Shows the recording quality that will be used by the camera during an Alarm or Event. Note that Set and Override schedules will be used only when Timed Schedules are applied. Refer to 'Schedule' for further information. |

***Note:*** *When Turbo mode is selected, there will be only ONE configurable Record Profile across ALL cameras. The unit then matches the live transmission rate to the configured record rate. This enables a 'doubling' of performance. Only the 'Low' and 'Medium' Live Transmission profiles are available for configuration (Network Settings->Live Transmissions). Low and Medium transmission settings are configurable to allow video streaming over low bandwith IP connections and are limited to CIF for this purpose.*

**Note:** *Unset, Set and Override modes can be given more recognisable titles i.e. Day, Night, Weekend via the Schedule menu (Record Settings->Schedule).*

| | |
|---|---|
| Comp | Select image compression format (MPEG, JPEG, H264). |
| Res | Select image resolution format (QCIF, CIF, 2CIF or 4CIF). |
| Rate_kbps | If MPEG4 is selected, the figure entered here will be the bit rate allocated. A higher bit rate will provide better quality. MPEG bit rates can be entered within the range of 45-2500K bits/second. |

***IMPORTANT:*** *The bit rate allocation here will be limited to a maximum rate (limit dependant on model). For 8 and 16 channel units, the limit is 2048 per camera. For 32 channel units, the limit is 1024 per camera.*

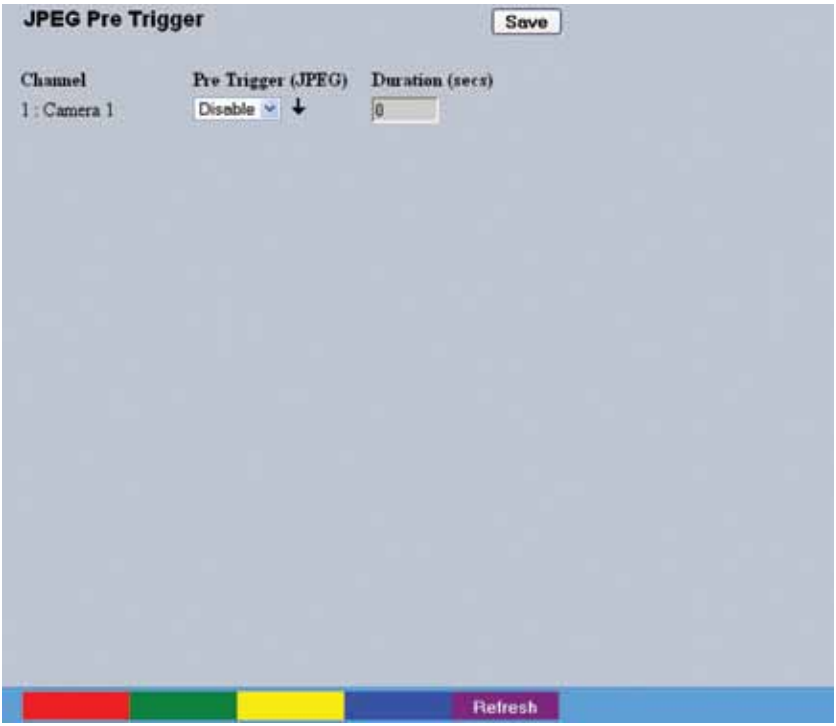
| | |
|---|---|
| Size | If JPEG is selected, the figure entered here will be the size of the JPEG transmitted (in Kbytes). JPEG file sizes can be configured within the range of 5-45Kbytes. |
| PPS | Select the number of pictures recorded per second. |
| GOP | If using MPEG4 recording, select the number of images recorded within a GOP (Group of Pictures). A GOP consists of an I-Frame (keyframe) and following P frames. |

***Note:*** *The GOP is also the rewind interval and stop interval for MPEG recording playback.*

***Note:*** An MPEG I-frame is considerably larger than a P-frame. Therefore the lower the GOP ratio, the higher the disk space required to store recorded images.

# JPEG Pre Trigger

*This menu enables configuration of the pre trigger feature (for cameras recording JPEG mode only). When enabled, the pre-trigger feature will buffer and store alarm recording prior to an event trigger.*




| | |
|---|---|
| Channel | Only those camera channels set to record in JPEG mode will be available for configuration. |
| Pre-Trigger (JPEG) | Enabling the Pre-Trigger feature will buffer and store alarm recording prior to an event trigger (in JPEG format). It will use the maximum available memory dependent on other cameras requirements of the buffer space. Select 'Enable' to activate. |

***Note:*** *It is recommended that the Pre-Alarm option in the 'Alarm Settings-Zone Input' menu be set to the same value as the Pre-Trigger setting. This will ensure successful playback of high quality Pre-Trigger images. High quality pre-trigger images will only playback properly if review (playback) starts prior to the pre-trigger initiation.*

| | |
|---|---|
| Pre-Trigger Duration (secs) | The Pre-Trigger Duration is the maximum possible time that data will be stored prior to an event trigger. |



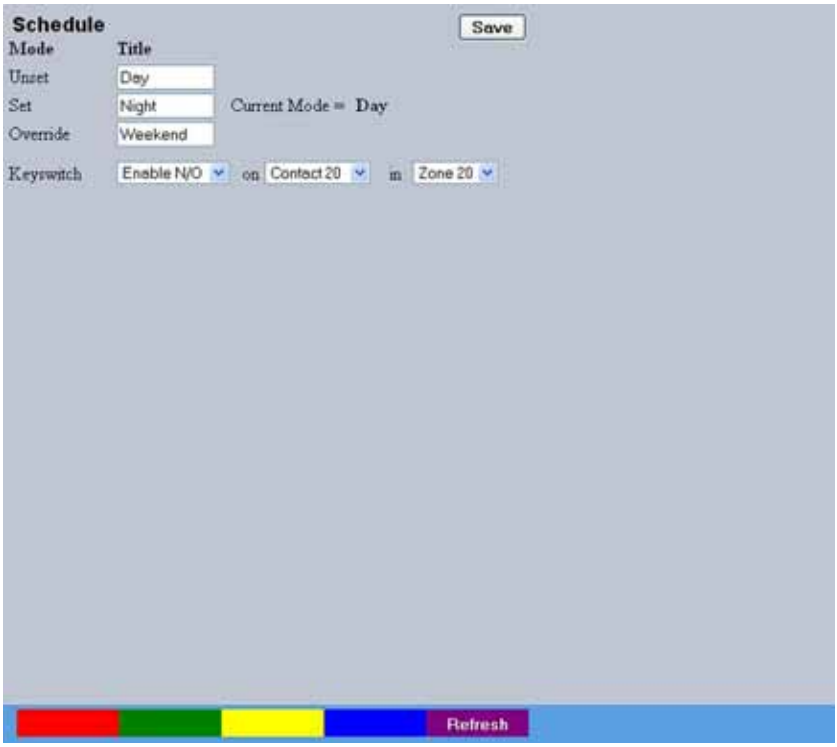
Dedicated Micros ©2010

# Schedule

*This menu allows the Timer Function to be configured. The Timer Function enables the unit to automatically be put into set/unset mode at specific times on specific days. This can help reduce unnecessary alarm triggers.*

*When the unit is in Set or Unset mode, combine with different recording qualities and rates under normal and alarm conditions for a high degree of control in a range of situations.*

***Note:*** *If Keyswitch is Enabled, the Day Time and Night Time options will not be displayed. The additional Keyswitch options will instead be displayed.*




| | |
|---|---|
| Mode/Title | Enables a name to be entered for Unset, Set and Override mode. |
| Current Mode | Shows the current timer mode according to the names entered in the Mode/Title text boxes. |
| Day Time | Enter the time (using the 24hr clock) when Unset mode will begin. |
| Night Time | Enter the time (using the 24hr clock) when Set mode will begin. |
| Keyswitch | A Keyswitch can be used to switch the recording profile (Unset/ Set), If required, select ‘Enable’ then choose a contact to be used in a specific zone as the Keyswitch. |

***Note:*** *When the Keyswitch option is set to ‘Enabled’. It is necessary to save (or exit and return to) the menu. The additional Keyswitch options will then be displayed.*

| | |
|---|---|
| Keyswitch-N/O | Select whether the Keyswitch is to be normally open (UNSET) |
| Keyswitch EOL | Select to configure the Keyswitch for EOL. The End Of Line (EOL) option enables the Keyswitch to detect any changes in the electronic input resistance. A change outside the expected values will result in a Tamper Alarm (short circuit or open circuit) being detected and the system switching to alarm mode. |

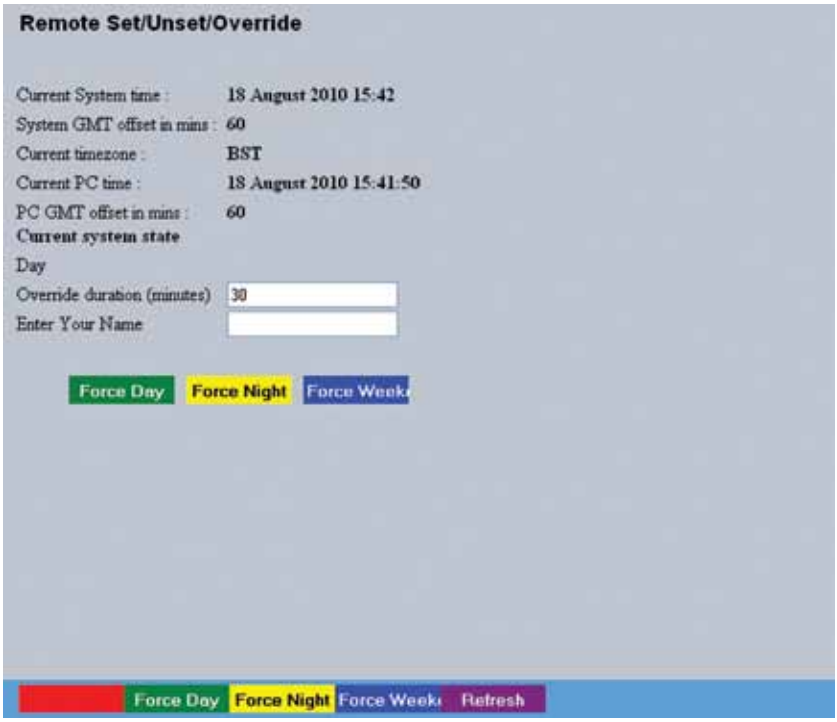


Dedicated Micros ©2010

# RVRC

*This menu allows a user to temporarily switch the unit's system state into set/unset/override mode. The user will be required to enter their name and also the intended override duration. The action will be logged.*

***Note:*** *Refer to the Schedule menu for details of how to configure Set, Unset and Override modes: Record Settings->Schedule.*




| | |
|---|---|
| Current System Time | The unit's current date and time information will be displayed. This will be logged with any override action. |
| Current PC Time | The current date and time information of the PC currently being used to view the webpages will be displayed. This will be logged with any override action. |
| Current system state | The current system state will be displayed i.e. Set, Unset or Override. |

***Note:*** *The system state names displayed here will depend on those entered via the Schedule menu: Record Settings->Schedule.*

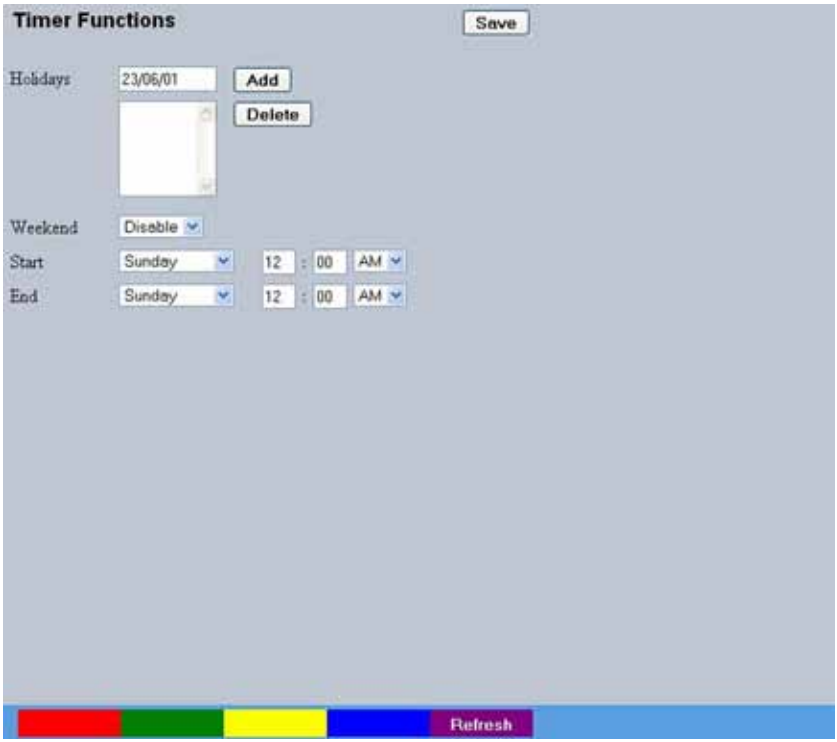
| | |
|---|---|
| Override duration (minutes) | Enter a time period for the override procedure. After this time period, the system state will return to that configured via the Schedule menu (for the current time). |

| | |
|---|---|
| Enter Your Name | Enter your recognised user name. This will be logged. |
| Force UNSET(Green) | Select to switch to Unset mode. |
| Force SET (Yellow) | Select to switch to Set mode. |
| Force OVERRIDE (Blue) | Select to switch to Override mode. |


Dedicated Micros ©2010

# Holiday & Weekend

*This menu allows the unit to be automatically switched to Override mode for individual days i.e. public holidays or during a weekend (or any defined period).*



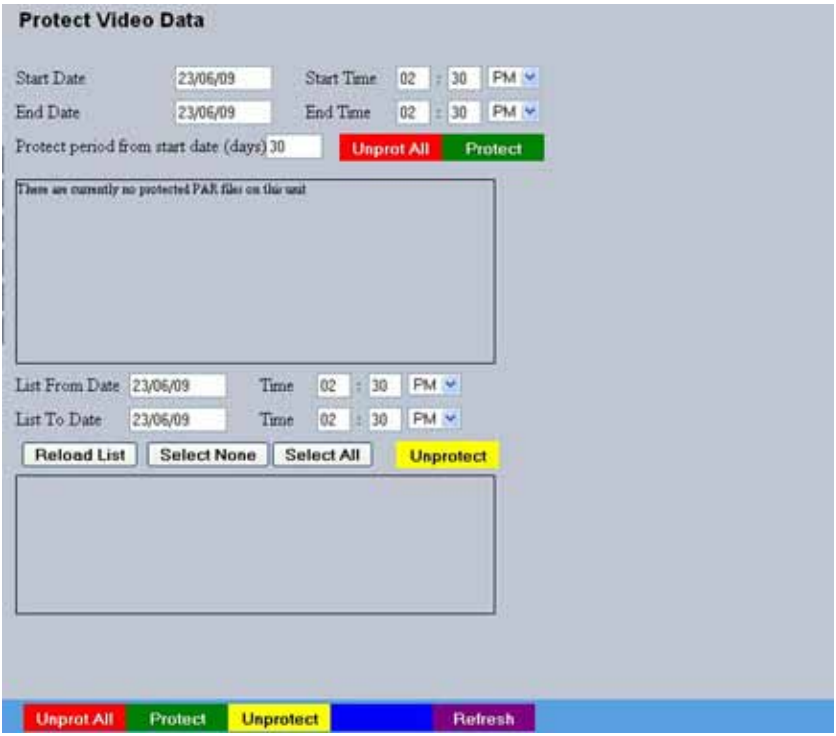

| | |
|---|---|
| Holidays | Enter a date and press the Add button. The date will be added to the Holiday list. To delete, highlight and select Delete. |
| Weekends | Select 'Enable' to activate the Weekend function. Set mode will now be active for the dates outlined below. |
| Start | Select a Start day and time for Weekend mode. |
| End | Select an End day and time for Weekend mode. |

***Note:*** *Weekend mode will remain activate each week until deselected.*

# Protect Video

*This menu allows the unit to automatically protect and retain recorded data. Previously saved data can also be unprotected. Enter a start and end time and select 'Reload List' . All saved video files from the chosen time period will be shown in the upper textbox. These recorded 'PAR' files can then be selected and protected via their accompanying checkboxes and the Protect option. Selected video files can also be unprotected via the Unprotect option.*

*The lower textbox provides a status report detailing which video files have been protected/unprotected.*




| | |
|---|---|
| Start Date | Enter a start date to protect video. |
| Start Time | Enter a start time to protect video. |
| End Date | Enter an end date to protect video. |
| End Time | Enter an end time to protect video. |
| Protect Length (days) | Enter the number of days that selected files will be protected for. |
| Protect | Select this option to protect recorded video for the selected time period(s). |
| Unprotect | Select this option to unprotect recorded video selected from the list. |
| Reload List | This will refresh the video list according to the selections made in the Start Time/Date and End Time/Date dialog boxes. |
| Select None | This de-selects all the available video files. |



Dedicated Micros ©2010

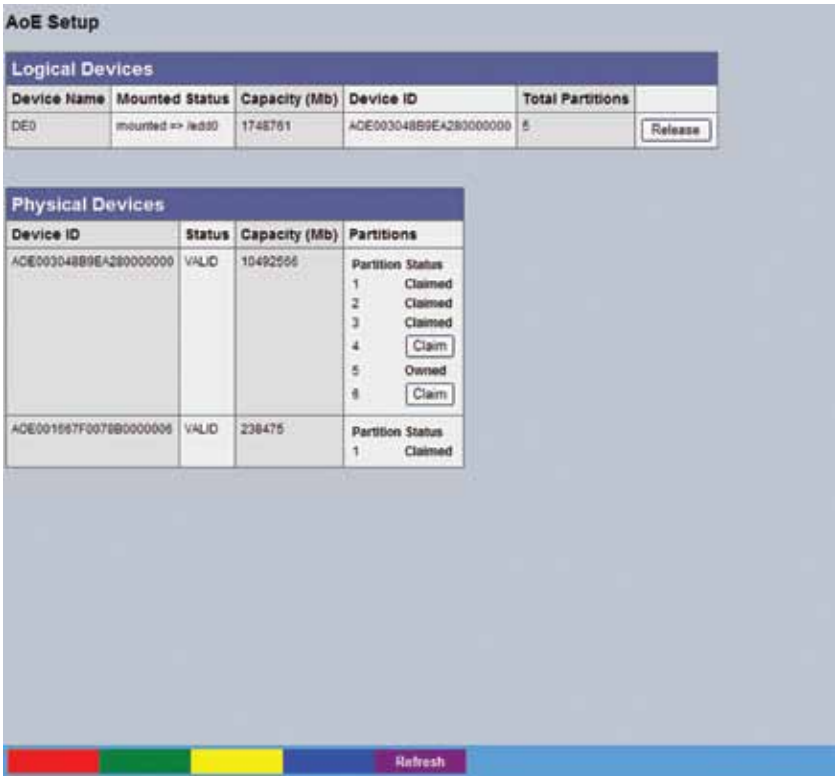
| | |
|---|---|
| Select All | This selects all the available video files. |
| List From Date/Time | This dialog box allows a search to be made within the protected video list starting from a specific Time and Date. |
| List To Date/Time | This dialog box allows a search within the protected video list to conclude at a specific Time and Date. |

# AoE Setup

*This menu allows configuration of the units ATA over Ethernet (AoE) function. AoE is a network protocol designed for simple high-performance access of storage devices over Ethernet networks. Importantly the external storage device must be located on the same network as the unit. AoE does not rely on network layers such as IP and TCP, making it non routable i.e. routers cannot be used to forward a packet across disparate networks. AoE packets can only travel within a single local Ethernet storage area network (adds a physical layer of security to the information). The stored video can only be accessed by plugging directly into an ethernet socket in the same LAN as the host. This means AoE cannot be accessed over the Internet or other IP networks, but makes AoE more lightweight (with less load on the host), easier to implement, provides a layer of inherent security, and offers higher performance.*

***Note:*** *Refer to Viewer Menu->Copy Menu for guidance on exporting Event data via the unit's USB port.*

***Note:*** *For further assistance with AoE setup, please contact Dedicated Micros Technical Support on Tel: +44 (0) 845 600 9502.*




Logical Devices — Connected AOE Devices - Any devices in this panel are being used by the unit to store data. They can be freed by clicking on the Release button.



Dedicated Micros ©2010

| | |
|---|---|
| Physical Devices | Available AOE Devices - Any devices in this panel are available on the network. They can be added to the storage capability of this unit by ‘claiming’ the storage. Unavailable storage is listed as Owned. Claimed storage capacity can be ‘released’ in the top panel. |

# Alarm Settings

*The Alarm Settings menus allow configuration of the unit's alarm functionality. Individual alarm inputs and alarm zones can be configured. Global relays can be activated and the Activity grid set up. Refer to the individual menus for further details.*

*The Alarm Input page allows configuration of alarm channels. Up to 19 alarm channels are available.*

*The Zone Input page enables the configuration of alarm zones. Up to 32 separate alarm zones can be created.*

*The Zone Actions page enables actions such as Go to Preset to be allocated to alarm zones. Zones can also be associated with a specific camera. On receipt of an alarm, images from the associated (primary) camera will automatically be displayed in the Viewer menu.*

*The Masked Camera Detection page allows cameras to be enabled for 'masked' detection based on a threshold contact value and dwell time.*

*The VMD/Activity Response page enables configuration of responses following an VMD/Activity Detection trigger.*

*The Activity Setup page allowed activation and configuration of the Activity feature on all video inputs. The Activity feature enables cameras to automatically detect any movement/changes within the video scene. This can trigger a number of operations such as FTP alarm notification or an increase in the recording rate.*

*The VMD Configuration page enables the unit's VMD (Video Motion Detection) to be set-up. VMD allows a camera to automatically detect if there is any movement/changes within specific areas of the video scene.*

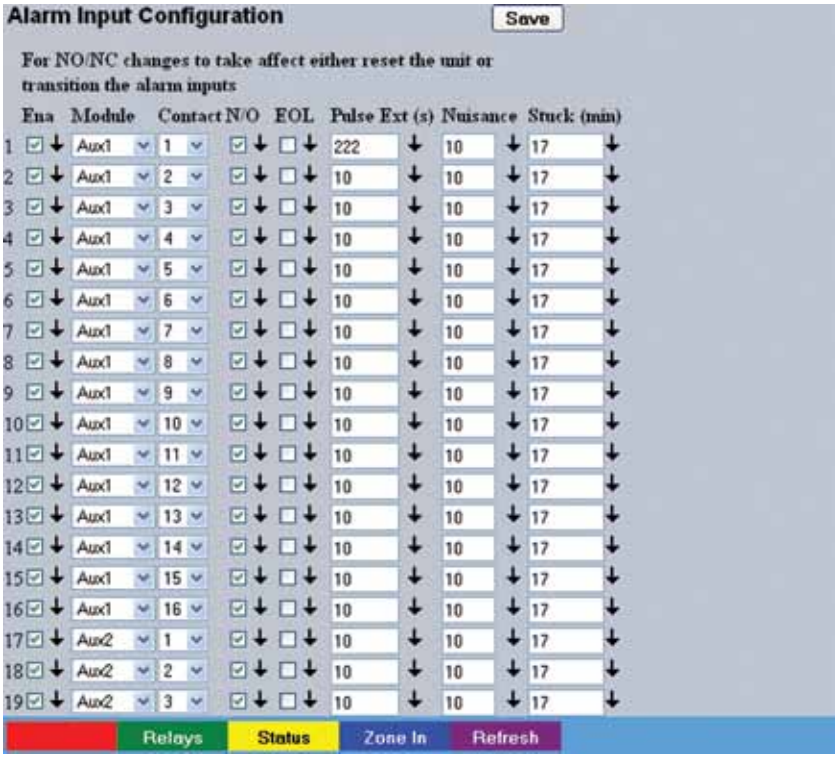
*The Global Actions page allows the two onboard relay connections and global relay settings to be configured.*



Dedicated Micros ©2010

# Alarm Input

*This menu allows configuration of the alarm settings, refer to 'Installing the Unit' for hardware installation guidance.*


Alarm Input Configuration
Save
For NO/NC changes to take affect either reset the unit or transition the alarm inputs
Ena Module Contact N/O EOL Pulse Ext (s) Nuisance Stuck (min)
1 Aux1 1 222 10 17
2 Aux1 2 10 10 17
3 Aux1 3 10 10 17
4 Aux1 4 10 10 17
5 Aux1 5 10 10 17
6 Aux1 6 10 10 17
7 Aux1 7 10 10 17
8 Aux1 8 10 10 17
9 Aux1 9 10 10 17
10 Aux1 10 10 10 17
11 Aux1 11 10 10 17
12 Aux1 12 10 10 17
13 Aux1 13 10 10 17
14 Aux1 14 10 10 17
15 Aux1 15 10 10 17
16 Aux1 16 10 10 17
17 Aux2 1 10 10 17
18 Aux2 2 10 10 17
19 Aux2 3 10 10 17
Relays
Status
Zone In
Refresh

| | |
|---|---|
| Number | This identifies which input is being configured. The unit supports 19 on-board alarms. |
| Ena | Each input must be enabled to function. If the input is not enabled and an alarm is received, the unit will not acknowledge the alarm. |
| Module | The alarm contacts are connected via modules. Select the module that the contact to be configured is in. |
| Contact | Select the Contact within the module to configure. |
| N_O (Normally Open Contact) | N_O indicates the non-alarm state of the input. Tick the N_O checkbox to set the corresponding input to Normally Open. The alarm will then trigger when the input is closed (shorted). If left as Normally Closed (the default setting), the alarm will trigger when the input is opened. |

***Note:*** *If EOL alarms are to be used, this option should not be selected i.e. leave set as Normally Closed.*

| | |
|---|---|
| EOL | The End Of Line (EOL) option enables the inputs to detect any changes in the electronic input resistance. A change outside the expected values will result in a Tamper Alarm (short circuit or open circuit) being detected and the system switching to alarm mode. |

| | |
|---|---|
| Pulse Ext (s) | A pulse extension is used to prevent double triggers on a single alarm. The pulse extension time starts on an alarm trigger. If that contact is triggered again after the first alarm has finished but within the pulse extension, the second trigger will not restart the alarm, but will extend the current alarm duration. Enter the time in seconds for this extension. |
| Nuisance | This is a repetitive detector value. When an alarm is received on the unit, it will store the alarm time and monitor the number of times the same detector is triggered within an hour period. If the detector is triggered the number of times entered here, the unit will de-activate this detector from triggering an alarm for an hour. The unit will continue to monitor the detector and check how many times it is triggered during this period. If it is again triggered more than the amount set in the nuisance counter, it will remain de-activated for another hour. This will continue until the trigger value falls below the nuisance count setting. To disable this feature, leave the setting as '0'. |
| Stuck Time (min) | If any of the alarms/detectors are active for a period longer than specified here, they will automatically be omitted. This time period is set in minutes. |

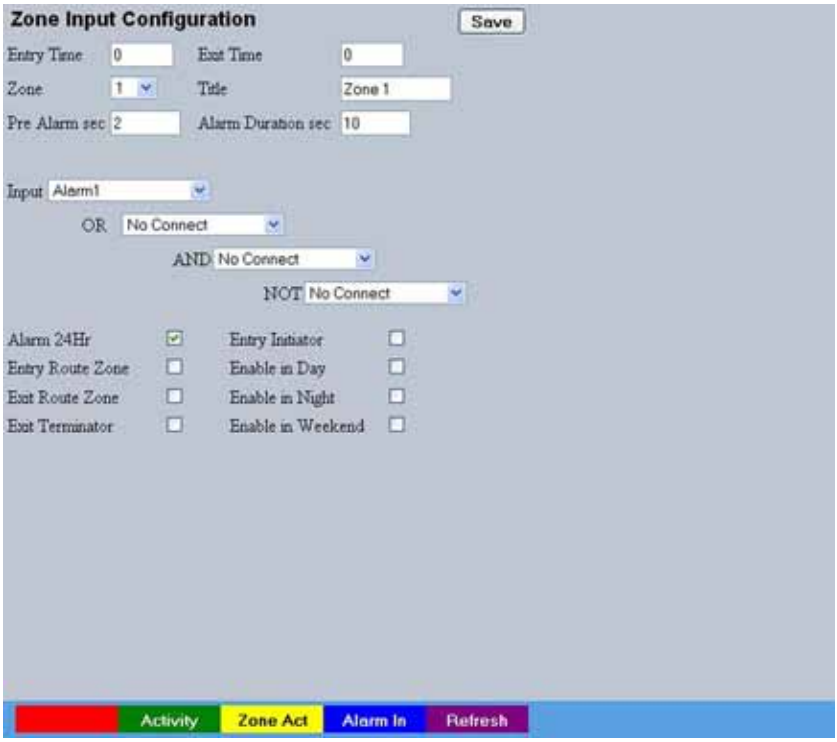
***Note:*** *The arrow button displayed next to each textbox allows settings to be replicated for those cameras listed below. This will only affect the adjacent option i.e. Enabled arrow will replicate the Enabled setting to cameras below the clicked arrow.*



Dedicated Micros ©2010

# Zone Input

*This menu allows the configuration of established alarm zones. A single or multiple trigger can be used to generate an alarm. It is possible to allocate up to 32 alarm zones to carry out a combination of actions. Use these options in conjunction with the Zone Actions menu.*




| | |
|---|---|
| Entry timer | This is the number of seconds allowed for the user to enter the zone and disable the alarms. If the alarm is not disabled within this period the alarm will be triggered. |
| Exit timer | This is the number of seconds from the alarm being set within which the user must exit the set zone. If the user is still within the zone after this time period the alarm will be triggered. |
| Zone | An alarm zone can be established to logically groups alarms and initiate actions when an alarm is activated, there are 32 configurable zones. |
| Title | This information is stored along with the relevant images in the database, ensure this has relevance to the alarm zone. |
| Pre-Alarm sec | This is the time period prior to the start of the alarm included with the alarm recording for archive. These images will also be protected from being overwritten. |

***Note:*** *It is recommended that the Pre-Alarm option be set to the same value as the Pre-Trigger setting in the "Profile Record" menu. This will ensure successful playback of high quality Pre-Trigger images. High quality pre-trigger images will only playback properly if review (playback) starts prior to the pre-trigger initiation.*

Dedicated Micros ©2010

| | |
|---|---|
| Alarm Duration sec | This is the minimum time period in seconds (from the start of the alarm) that is protected from being overwritten. This time will include the alarm trigger, the pulse extension and any post alarm recording. It will not include pre-alarm images. |
| Zone Input Rule | This determines which input(s) will trigger the zone alarm: |
| Input | This sets an input or system function as the primary alarm trigger. Select from Alarms 1-32, Activity 1-16, Preset 1-16, Disk Low, Disk Full, Panic, Archiving Slow, Archiving Fault, Virtual 1-16, and Keyword Channel 1-32 (which will trigger the Alarm if any or the 32 programmed keywords are detected on the selected channel). |
| Zone OR Input | The Zone OR Input identifies an alternative input that can also be used to trigger the zone alarm. This means an alarm trigger can be received on the Zone Alarm Input or the Zone OR Input for the zone to be activated. |
| Zone AND Input | The Zone AND Input identifies that an alarm trigger needs to be received on both the Zone Alarm Input and the Zone AND Input for the zone to be activated and the alarm action to the automatically initiated. |
| Zone NOT Input | The unit will only issue the alarm actions if the trigger is received on the zone alarm input and NOT on the Zone input. |
| Alarm 24Hr | This option can be enabled for alarms that do not require change at any time and are to remain as programmed i.e. Panic Alarm. When this is selected, the Set, Unset and Override options are disabled. |
| Entry Route Zone | This creates deferred alarms along a specified route while the entry time is active. This is in compliance with BS8418 (the British Standard for remote video reporting centres). Diverting from the entry route during the countdown will result in the alarm being triggered immediately. This allows staff entry without triggering an alarm prior to switching the system to Set mode. |
| Exit route Zone | This creates deferred alarms along a specified route while the exit time is active. This is in compliance with BS8418 (the British Standard for remote video reporting centres). Diverting from the exit route during the countdown will result in the alarm being triggered immediately. This allows staff to exit without triggering an alarm. |
| Exit Terminator | This will trigger the exit timer if the system is set. A countdown timer will automatically start when the alarm is activated and ensure the alarm system is not activated by other specified alarm triggers for the Set time i.e. allowing a Guard to exit a building. |
| Entry Initiator | This will trigger the entry timer if the system is set. A countdown timer will automatically start when the 'primary' alarm trigger i.e. front door, is actioned. This ensures the alarm system is not activated by other specified alarm triggers for the set time |
| Enable in Unset | Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Unset operation mode. |
| Enable in Set | Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Set operation mode. |
| Enable in Override | Each alarm can be configured to be active when the unit is in a specific operation mode. Enable this for the zone alarm to be active in Override operation mode. |


Dedicated Micros ©2010

# Zone Actions

*This menu allows actions to be allocated to individual alarm zones; Primary and Secondary cameras can be allocated to the zone and actions undertaken following alarm activation. This page should be configured in conjunction with the Zone Inputs menu.*

| | |
|---|---|
| Zone | Select a zone (alarm) to configure. |
| Alarm Colour | This displays the local alarm text in the selected colour and can be useful in prioritising alarms. Options available are Red, Green, Blue, Yellow, Cyan and Magenta. |
| Secondary Cameras | This setting gives the facility to assign additional cameras to the zone. These cameras will become part of the alarm sequence shown in the Viewer menus when the alarm zone is triggered. |
| Create Database Entry | An alarm activation will be added to the database. The zone title will be used as part of the entry information. |
| Alarm Relay | Select to trigger an alarm relay following zone activation. Select the specific relay via the 'Relay' option. |
| Profile Change | Select to enable the unit to switch from Normal to Event recording following alarm zone activation. |
| Play Audio | It is possible to play associated audio upon zone alarm activation. |
| Alarm Reporting | This must be enabled to allow the unit to send an alarm notification to an external destination i.e. an RVRC reporting via NetVu ObserVer. |
| Archive | Select to ensure the unit automatically downloads alarm images via an FTP connection to an FTP server. |

Dedicated Micros ©2010

| | |
|---|---|
| Add Still Image | This will record a still image of the trigger along with the standard recording. This can then be sent on to an external destination. |
| Email Image | If this option is selected, a JPEG will be added to the reporting email (if Email Reporting is selected). |
| Protect alarm Images | Alarm images can automatically be protected from being overwritten. |
| Switch Spot Monitor | Select to display the alarm zone Primary camera on the Spot Monitor. |
| Goto Preset | It is possible to action a camera to automatically be sent to a preset position when an alarm is triggered. |
| Email Reporting | The unit can send an email when an alarm is detected. Refer to 'Network->Email' for further information. |
| Alarm Rate Change | Select to change to the alarm mode recording rate on zone action. |
| VMD/Activity Inhibit | Select to inhibit (ignore) the VMD/Activity detection feature. Refer to 'Alarm Settings->Activity Setup' for further information. |
| System Set | Select to change to the 'Set' mode recording rate on zone action. |
| Enable Buzzer | Select to activate the unit's internal buzzer upon alarm receipt. |
| Relay | Select an onboard or external relay to automatically close on receipt of an alarm. |
| Relay Duration | Enter (in seconds) how long the relay is to remain closed. |
| Alarm Image Snapshot Delay | This figure allows a delay to be introduced before an alarm snapshot is taken. This is used when the alarm relates to a PTZ camera which has to travel to a preset position. |
| Play Audio Message | Following a Zone alarm trigger, a specific audio message can be played. |

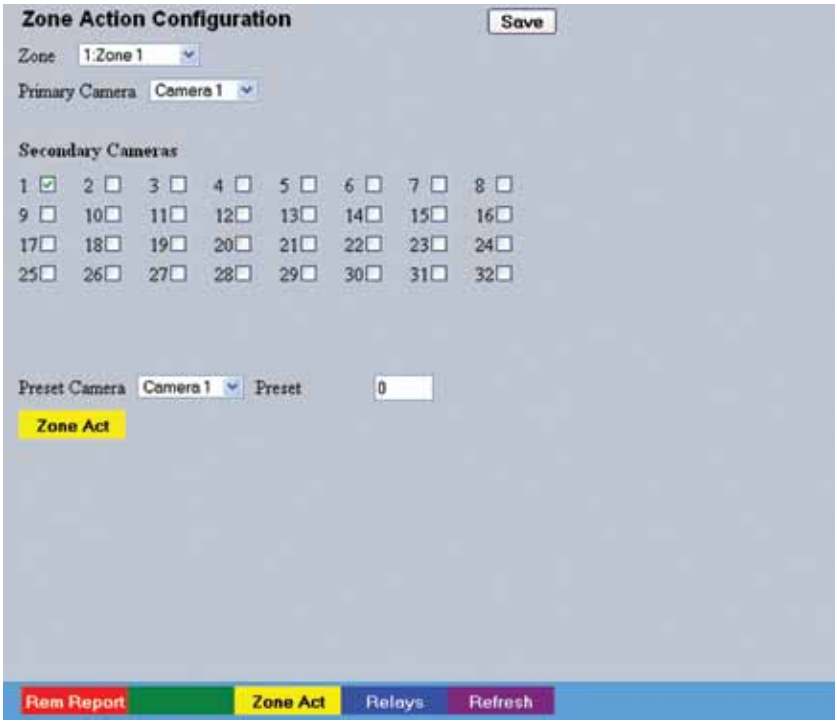
***IMPORTANT:*** *Audio messages must be uploaded to the unit in mono 8k wav format only. The following naming convention must be used: messageXX.wav i.e. message00.wav, message01.wav etc. An FTP client should be used to place the wav files in the following folder: \mdd0\messages folder .*

| | |
|---|---|
| Switch Main Monitor | Select to display the alarm zone Primary camera on the Main Monitor. |
| Cam Options (Yellow) | Select to open the Zone Action Camera Configuration menu. |



Dedicated Micros ©2010

## Zone Actions Camera



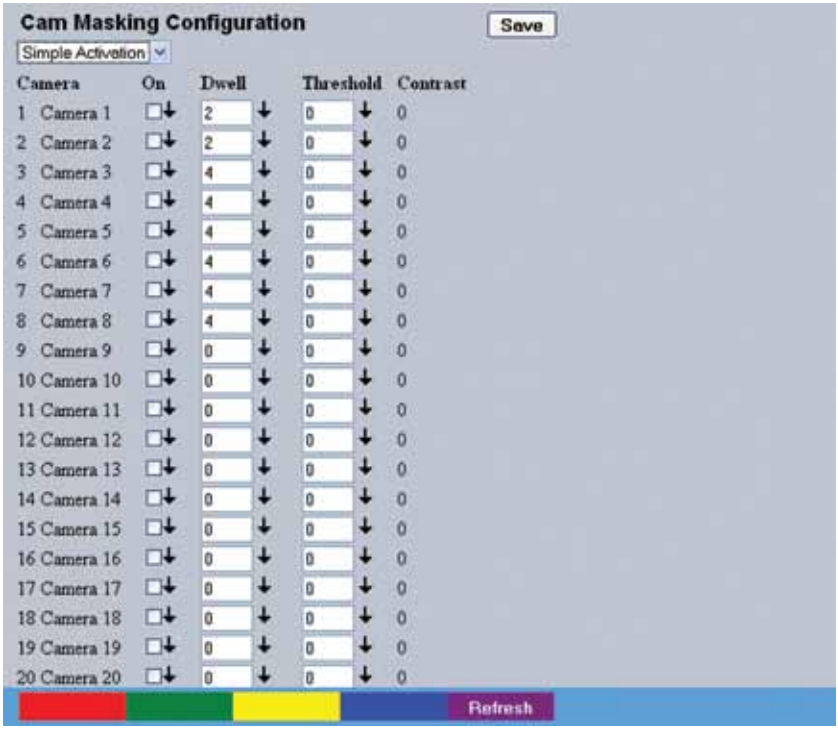

| | |
|---|---|
| Zone | Select a zone (alarm) to configure. |
| Primary Camera | This allows a camera to be assigned as the primary camera associated with the Alarm Zone. The primary camera will be displayed when an alarm in this zone is triggered. |
| Secondary Cameras | This setting gives the facility to assign additional cameras to the zone. These cameras will become part of the alarm sequence shown in the Viewer menus when the alarm zone is triggered. |
| Preset Camera | The preset camera is the camera which will be sent to a designated preset position upon alarm activation. |
| Preset | Enter the preset position number for the selected camera here, refer to 'Unit Operation-PTZ Program' for more information on establishing camera preset positions. |

Dedicated Micros ©2010

# Masked Cam Detection

*The unit has the capability to identify if a video input has been covered (by hand, spray paint, etc.) to prevent video images being viewed and recorded. The Camera Masking option identifies normal levels of contrast and uses them as a base line. It then compares these against a user defined minimum contrast level. If the video input goes below this user defined level an event is generated on the unit.*

## Simple Activation


Cam Masking Configuration
Save
Simple Activation
Camera
On
Dwell
Threshold
Contrast
1 Camera 1 2 0 0
2 Camera 2 2 0 0
3 Camera 3 4 0 0
4 Camera 4 4 0 0
5 Camera 5 4 0 0
6 Camera 6 4 0 0
7 Camera 7 4 0 0
8 Camera 8 4 0 0
9 Camera 9 0 0 0
10 Camera 10 0 0 0
11 Camera 11 0 0 0
12 Camera 12 0 0 0
13 Camera 13 0 0 0
14 Camera 14 0 0 0
15 Camera 15 0 0 0
16 Camera 16 0 0 0
17 Camera 17 0 0 0
18 Camera 18 0 0 0
19 Camera 19 0 0 0
20 Camera 20 0 0 0
Refresh

Simple Activation  Select Zone Activation

| | |
|---|---|
| Camera | Displays the camera number and camera title as configured on the Camera Setup page. |
| On | Enables or disables the feature on the camera. |
| Dwell | This is the delay the unit will wait before declaring the camera is masked. |
| Threshold | Defines the threshold the system uses to define that a camera is masked. It will be necessary to adjust this figure to avoid false alarms. |

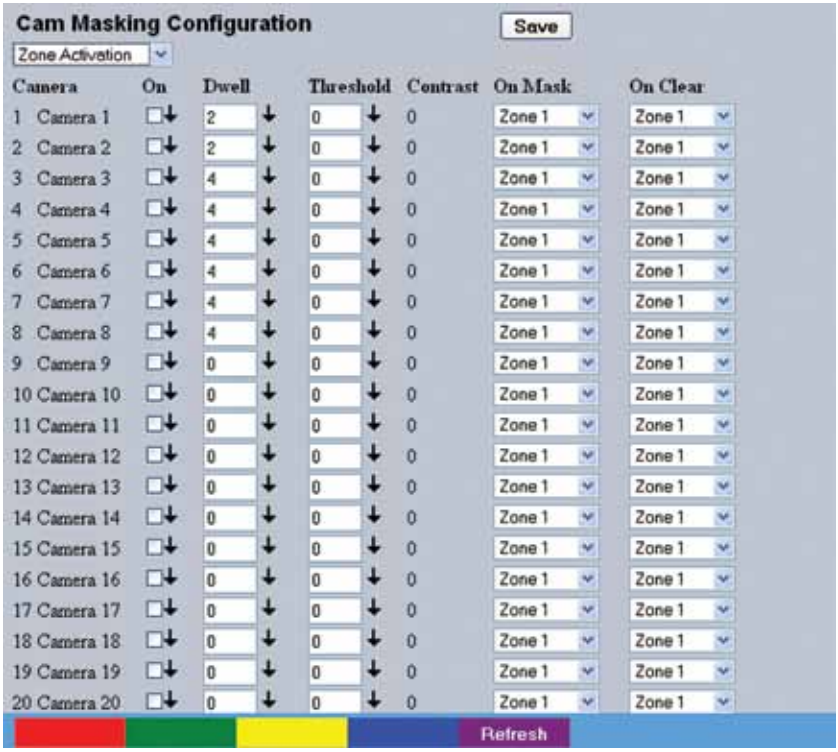
***Note:*** *In low light conditions, enter a figure below the contrast threshold (see below). Experiment with camera masking alarm activation until a figure is selected were false alarms are avoided*



Dedicated Micros ©2010

| | |
|---|---|
| Contrast | Defines the contrast threshold the system uses to define that a camera is masked. Different cameras have different characteristics, |
| On Camera Masked/Unmasked | There is only the option to add an entry into the database in Simple Activation. Select Zone Activation for more options. |

## Zone Activation



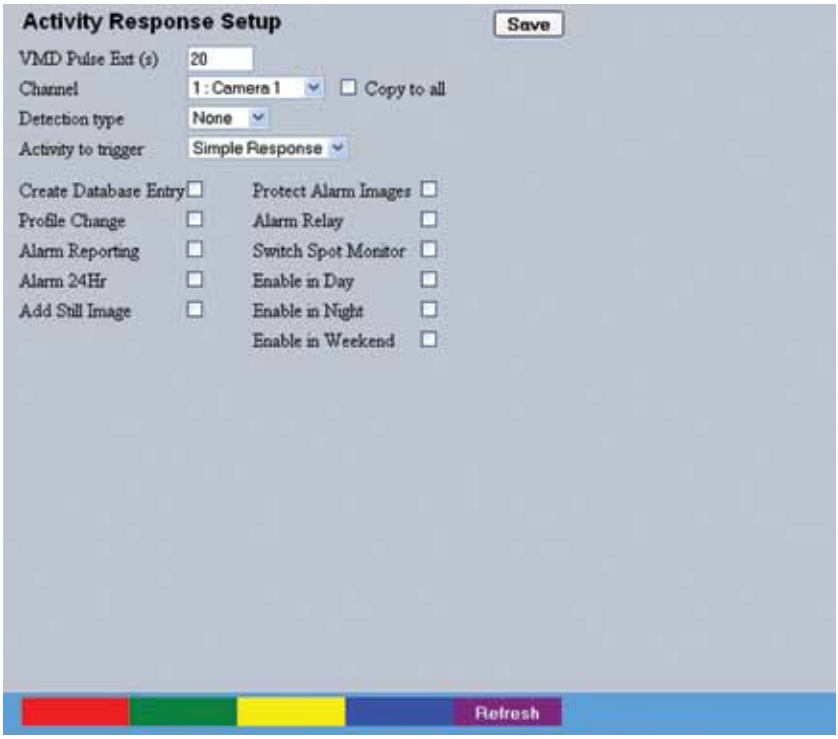

| | |
|---|---|
| On Mask | Defines the Zone trigger that will be activated when the view is masked. |
| On Clear | Defines the Zone trigger that will be activated when the view is unmasked. |



Dedicated Micros ©2010

# VMD/Activity Response Setup

*This menu enables response configuration following activity trigger on a selected camera channel.*




| | |
|---|---|
| VMD Pulse Ext | The pulse extension extends the trigger period to avoid double triggers of VMD occurring, i.e. If a second incident of VMD is received, after the first alarm is finished but within this period, the unit will not create a new event. |
| Channel | Select the camera input for configuration from the drop down list. |
| Copy To All | Select to copy the current Activity Response settings to all camera channels. |
| Detection Type | Each camera input can be configured for either 'VMD' or 'Activity' detection. To assign no detection settings to the camera, select 'None' |

***Note:*** *Whichever Detection option is selected here, will result in the camera channel being only available for editing in the relevant configuration menu i.e. if Activity is selected for Channel 1; this channel can only be edited for Detection in the Activity Setup menu and not the VMD Configuration menu.*

| | |
|---|---|
| Activity To Trigger | Following Activity activation, select 'Simple Response' to trigger specific chosen responses from the options detailed below. Select 'Zone' to apply the Zone Input rules as configured in the Zone Input menu. *Refer to 'Zone Input' for more information.* |

***Note:*** *When Activity to Trigger is set to 'Zone'; the options detailed below are unavailable.*

| | |
|---|---|
| Create Database Entry | When selected, an alarm entry will be added to the Event database. |

| | |
|---|---|
| Profile Change | Select to enable the unit to switch from Normal to Event recording following alarm activation. |
| Alarm Reporting | This must be enabled for the unit to automatically connect on alarm. |
| Alarm 24Hr | This will ensure that Activity Detection is permanently enabled on this camera channel. |
| Add Still Image | This will record a still image of the trigger along with the standard recording. This can then be sent on to an external destination. |
| Protect Alarm Images | Select to automatically protect alarm images from being overwritten. |
| Alarm Relay | Select to trigger an alarm relay following zone activation. Select the specific relay via the 'Relay' option. |
| Email Image | If this option is selected, a JPEG will be added to the reporting email (if Email Reporting is selected). |
| Enable in Unset | This will enable Activity Detection when the unit is in Unset operation mode. |
| Enable in Set | This will enable Activity Detection when the unit is in Set operation mode. |
| Enable in Override | This will enable Activity Detection when the unit is in Override operation mode. |

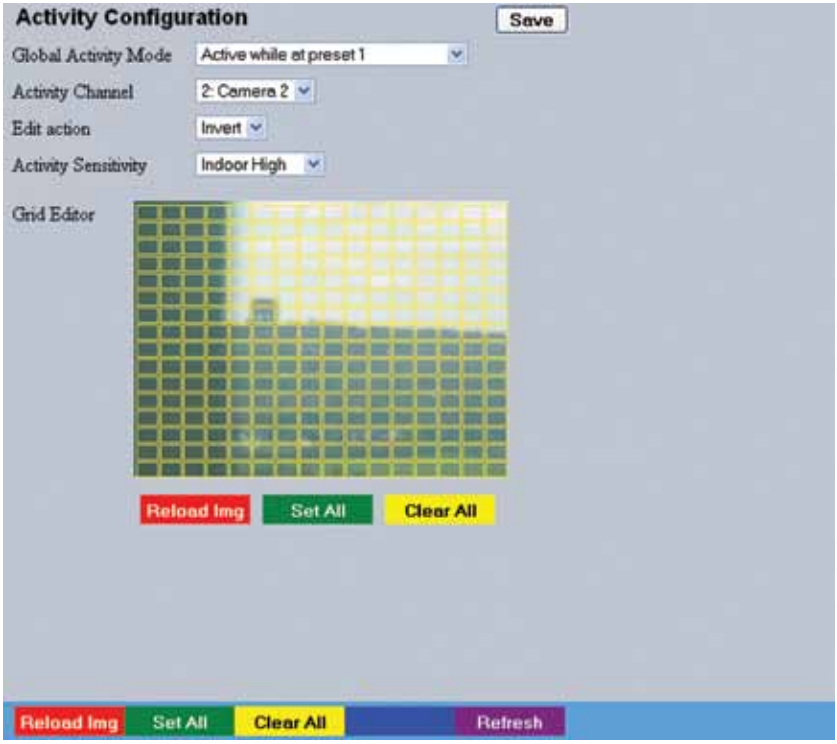
**Note:** *Unset, Set and Override modes can be given more recognisable titles i.e. Day, Night, Weekend via the Schedule menu (Record Settings->Schedule).*



Dedicated Micros ©2010

# Activity Setup

*The unit supports Activity Detection on all video inputs. It enables cameras to automatically detect any movement/changes within the video scene; this can trigger a number of operations such as FTP alarm notification and an increase in recording rate.*
*A still image of the selected camera will be shown in the Grid Editor screen. To establish an Activity zone, edit the cells displayed across the image.*
*This option should be used in conjunction with the Zone Inputs and Zone Actions menus.*




| | |
|---|---|
| Global Activity Mode | Three options are available for Activity activation (specifically in relation to a PTZ camera).<br>Selecting 'Active while at Preset 1' will result in Activity mode functioning only when the camera is at preset position 1. Select 'Active while camera not in motion' for Activity mode to function only when the camera is still. Select 'Always Active' for Activity mode to be in constant operation. |
| Activity Channel | This is a drop down list of the video inputs on the unit, selecting an input will display images from the corresponding video source. |
| Edit Action | Select 'Invert' to change the current grid state i.e. Clear to Set. Select 'Clear' to remove grids or select 'Set' to add grids. |
| Activity Sensitivity | This option allows the sensitivity setting to be established for the activity grid being configured. There are five settings to choose from: Indoor High, Indoor Low, Outdoor High, Outdoor Low, Very Low. |

Dedicated Micros ©2010

| | |
|---|---|
| Grid Editor | Use the Grid Editor by placing cells in areas of the camera view where movement will trigger an alarm. To enter cells navigate across the image via the Directional buttons of the I.R Remote Control). If viewing on a local monitor place a cell by pressing the OK button. If viewing via the webpages, use the mouse to navigate across the image, use the left mouse button to place a cell. |
| Reload Img (Red) | This option will update the still image displayed in the Grid Editor. |
| Set All (Green) | This option will insert a default square of 16 x 16 cells across the displayed video image. |
| Clear All (Yellow) | This option will clear all entered cells. |


Dedicated Micros ©2010

# VMD Configuration

*The unit supports VMD (Video Motion Detection) on all video inputs and allows cameras to automatically detect if there is any movement/changes within the video scene.*

***Note:*** *Video Motion Detection enables a greater degree of control over detection settings and configuration than the Activity Setup function. Each of the 16 VMD Zones can be directly sized and configured to suit specific requirements. VMD can only be accessed and configured remotely via the webpages.*

| | |
|---|---|
| Camera | This is a drop down list of the video inputs on the unit, selecting one of the inputs will display the corresponding video source. Ensure this corresponds with the selected Channel. |
| Zone | There are 16 VMD zones within the image that can be individually configured, select the zone from the drop down list.<br>A selected zone can be re-sized by clicking the mouse button (use the USB mouse if viewing on a local monitor) and then moving and clicking the mouse again. A rectangle will then be displayed based on these two selected points. |

| | |
|---|---|
| Mode | The zone mode identifies when the reference image is taken for triggering VMD. The options are:<br>Normal - The reference image is updated approximately every second. This will only allow small changes in the scene without triggering.<br>Last trigger - The reference image is only updated when the VMD is triggered and is best used under controlled lighting, i.e. so there are no false triggers due to ambient light changes.<br>Static - The reference image is collected on startup and is never updated. This would be used in 'sterile' areas where there are no changes expected.<br>Zone disabled - This will disable the zone mode. |
| Pixel Count (%) | This value is set as a percentage and equates to the percentage of pixels in the selected zone that must change for the VMD event to be triggered. The default setting is 20%. |
| Pixel Change (%) | This setting is a percentage value of the overall change required in the grayscale to be included in the pixel count. The percentage change is defined over the complete range of black to white, a 100% pixel change would be from black to peak white. The default setting is 20%. |
| Reload Image (Red) | This will update the reference image to the latest view during set up. |
| Clear All (Green) | Removes all defined zones from the image. |
| Default Grid (Yellow) | Displays the default 16 zone grid across the whole image. |


Dedicated Micros ©2010

# Global Actions

*This menu allows configuration of the default relay actions supported on the unit.*
*The unit supports four onboard relay connections and global relay settings. This global relay can be triggered under specific conditions i.e. on receipt of any alarm or notification of Activity Detection.*

| | |
|---|---|
| Image Protection Period | Select a time period (in days) that images associated with an alarm will be protected from deletion. |
| Alarm Display Mode | When a relay has been triggered, the primary camera associated with that relay can immediately be displayed on the local monitor. Select 'Jump To Primary Camera' from the drop down list to activate this function. |
| Revert Display Mode | Enable this setting to make the unit return to the view displayed before the alarm activation once the alarm has ended. |
| Alarm Display Alert | Enable this setting to display an alarm text alert in the colour specified in 'Alarm Colour' in the Zone Actions Menu. |
| Normally | Select whether the normal state of the relay contact should be Open or Closed for each of the four local relays. |
| On | Select to enable detection of the accompanying condition. Options available are; VMD/Activity, Camera Fail, System Set, Dial Out, System Override, Camera Masked and Is Recording, |

Dedicated Micros ©2010

| | |
|---|---|
| Contact | Specifies which Relay will be triggered when the associated alarm is received |
| Module | When connected, additional modules will be available i.e. 485 Bus module. These modules can then be activated following relay activation. |


Dedicated Micros ©2010

# Network Settings

*The Network Settings menus allow configuration of the unit's network functionality. Key network settings can be established such as 'fixing' the unit's IP address and maximum transmission rate. Email, remote reporting on alarm and FTP download can also be configured. Refer to the individual menus for further details.*

*The Network Settings page allows configuration of the unit's network connections such as the name assigned to the unit and its IP address.*

*The Live Transmission page enables JPEG and MPEG profiles to be created for transmitting images via a High, Medium or Low quality network connections to any viewing software or to another unit using this one as an IP source.*

*The Multicast page allows recordings from the unit's camera inputs to be forwarded to a port address; enabling multiple viewers to view live data using a suitable media player without the need to directly connect to the unit.*

*The Email page allows configuration of the Email feature. The unit can automatically transmit an email to an SMTP Server following an event i.e. on receipt of an alarm or a camera failure notice.*

*The Remote Reporting page allows a Remote Video Receiving Centre's (RVRC) configuration details to be entered. The RVRC will then be contacted following a selected event occurring i.e. reported alarm or camera failure.*

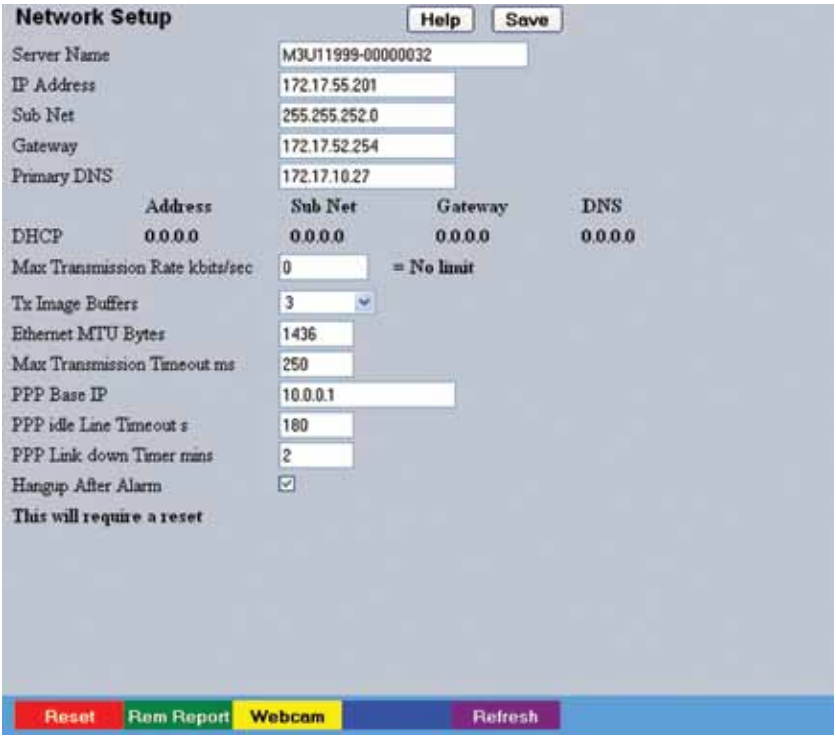
*The Web Cam page allows recordings from any of the unit's camera inputs to be forwarded to a Webserver. The images can then be incorporated into a web page and accessed via a standard web browser.*

*The FTP Download page allows data to be archived to a central FTP server. This could be on receipt of an alarm, Activity activation or at a scheduled time to back-up recorded video.*

*The Firewall page allows the user to block access to the unit via specific network port(s).*

# Network

*This menu allows additional network settings to be configured if required.*




| | |
|---|---|
| Server Name | This field can be edited to allocate a name to the unit. This would be used if accessing the unit via a Domain Name Server (DNS). |
| IP Address | This is the IP address allocated to the unit. |
| Sub Net | This is the subnet of the network were the unit is located. |
| Gateway | This is the IP address of the default gateway (router). |
| Primary DNS | This is the primary DNS server IP address for applications utilising domain names. |
| Max Transmission Rate | Shows the maximum transmission speed for the network type. |
| Tx Image Buffers | This is used in order to improve the picture delivery over Ethernet when using a slow connection i.e. 256Kbps. A buffer setting of 1,2 or 3 is available. |
| Ethernet MTU bytes | This is the maximum transmit unit for the Ethernet packet. The MTU is the largest physical packet size measured in bytes that the network can transmit. By default this figure is set to 1500bytes. |
| Mx Transmission Timeout ms | This is the time (in milliseconds) the unit will wait to re-send a packet if an acknowledgement is not received. |
| PPP Base IP | Base address for the PPP port |
| PPP Idle Line Timeout s | This is the time (in seconds) the unit will wait before disconnecting the PPP (Point to Point Protocol) link if data has not been transmitted or received. |

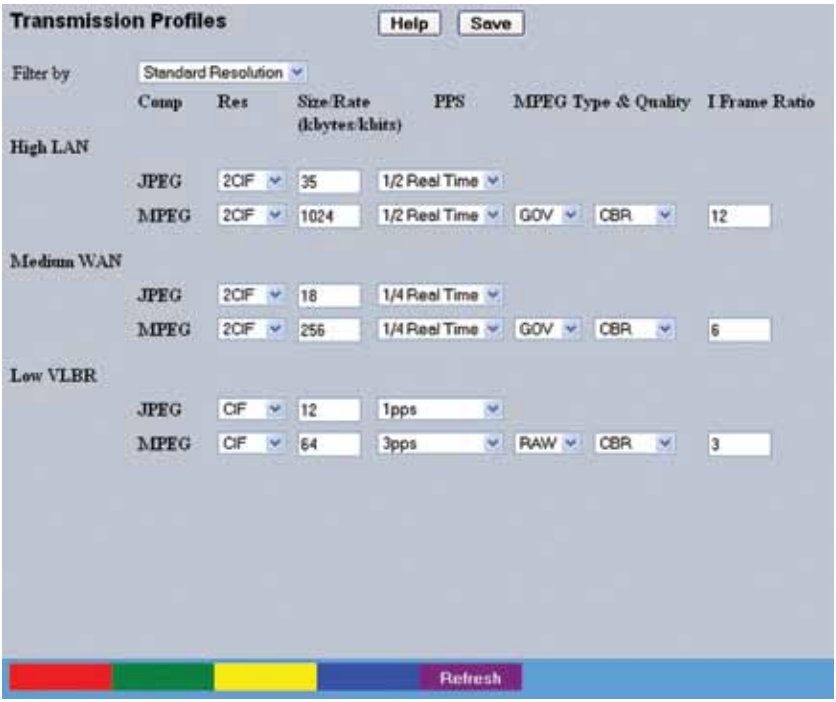


Dedicated Micros ©2010

| | |
|---|---|
| PPP Link Down Timer mins | If for any reason the PPP connection is lost, this is the time (in minutes) before the unit will be forced to drop the PPP connection. |
| Hangup After Alarm | Select to close the network connection following transmission of alarm data. |

# Live Transmissions

*The unit transmits live images using JPEG or MPEG formats.*
*The NetVu Connected remote viewing software will use the settings configured on this page as the defaults for JPEG & MPEG; High, Medium and Low settings.*




Filter by

The resolutions available for selection will depend on the camera types connected i.e. Standard Resolution or Megapixel Resolution and whether Turbo Mode has been activated via the Profile Record menu (Record Settings->Profile Record). Note that the Megapixel Resolution option will only be available if a megapixel camera is connected.

***IMPORTANT:*** *There are three classifications of IP camera:*

1. Standard Resolution - QCIF,CIF,2CIF,4CIF
2. Standard Resolution (VGA) - VGA,SVGA,QVGA,Q2VGA
3. Megapixel - VGA,SVGA,UXGA,QVGA,Q2VGA,XGA,XGA+,SXGA+,QXGA

*The classification of each connected camera channel can be viewed via the CamConfig menu (System Settings->Status->About->CamConfig).*

High LAN/Medium WAN/Low VLBR

This shows the transmission settings configured for a High quality LAN (Local Area Network) connection, Medium quality WAN (Wide Area Network) connection or a Low quality VLBR (Very Low Bit Rate connection).


Dedicated Micros ©2010

***IMPORTANT:*** *When 'Filter by Turbo mode' as been selected; all High LAN options will be auto-configured to match the profile record settings allowing for maximum record performance. High LAN will no longer be available for configuration of local analogue cameras or third party IP cameras. Select the Turbo Profs (red) option to view Turbo mode Profile Record/Transmission settings.*

| | |
|---|---|
| Comp | Settings can be established for JPEG and MPEG compression. |
| Res | For MPEG and JPEG transmission, select image resolution settings (4CIF, 2CIF, CIF or QCIF). |
| Size_rate | For JPEG, the figure entered will be the size of the JPEG transmitted (in Kbytes). For MPEG4 the figure will be the bit rate allocated. A higher rate will provide better quality picture display. JPEG file sizes can be configured in the range of 5-45Kbytes and MPEG bit rates in the range of 45-2500Kbits/second. |
| PPS | This shows the number of pictures transmitted per second. For JPEG, the actual images transmitted will depend on the bandwith of the link, increasing the pictures sent per millisecond may introduce time lag if bandwith is not sufficient. On MPEG transmission, increasing the pictures sent will also reduce the quality of the images (as more images are transmitted for the defined bit rate). |
| MPEG Type | Select whether transmitted MPEG4 images are sent as RAW data or in GOV (Group of Video) format. RAW mode transmits a single I frame and then a sequence of P frames (until a change in transmission is detected). GOV mode sends I and P frames in a standard format i.e. I to P frame ratio as set by the I Frame Ration option. |
| MPEG Quality | The Quality of the MPEG data transmission can be set from CBR (Constant Bit Rate) to High 32. A higher quality setting may result in a lower transfer speed. |
| I Frame Ratio | Select the ration of I Frames recorded between each P Frame. |

***Note:*** An MPEG I-frame is considerably larger than a P-frame. Therefore the higher the IP ratio, the higher the disk space required to store recorded images.

# Multicast Setup

*The Multicast page allows recordings from the unit's camera input to be forwarded to a port address; enabling multiple viewers to view live data using a suitable media player without the need to directly connect to the unit. In multi viewing scenarios, the demands on the unit are significantly reduced; improving overall performance.*

*This system has been validated using the 'Videolan VLC media player for MS Windows.*
*The Videolan VLC media player can be downloaded free of charge from:*

*www.videolan.org/vlc/download-windows.html*

*Please refer to Appendix E for guidance on configuring the Videolan VLC media player.*

***Note:*** *Multicast can only used for live viewing, requests for stored images and events will still need to be made via the Viewer menu.*

| | |
|---|---|
| Multicast Address | Assign a unique IP address. This address is not assigned to any 'physical' unit. The VLC program will use this address (when configured to do so) as its multicast group and access any broadcast images via the configured port address (see below).<br>If there are multiple units using multicast, each one must have a unique IP address. |
| Multicast port | Following configuration of the IP address, configure the port address. The address will default to 1234, . |

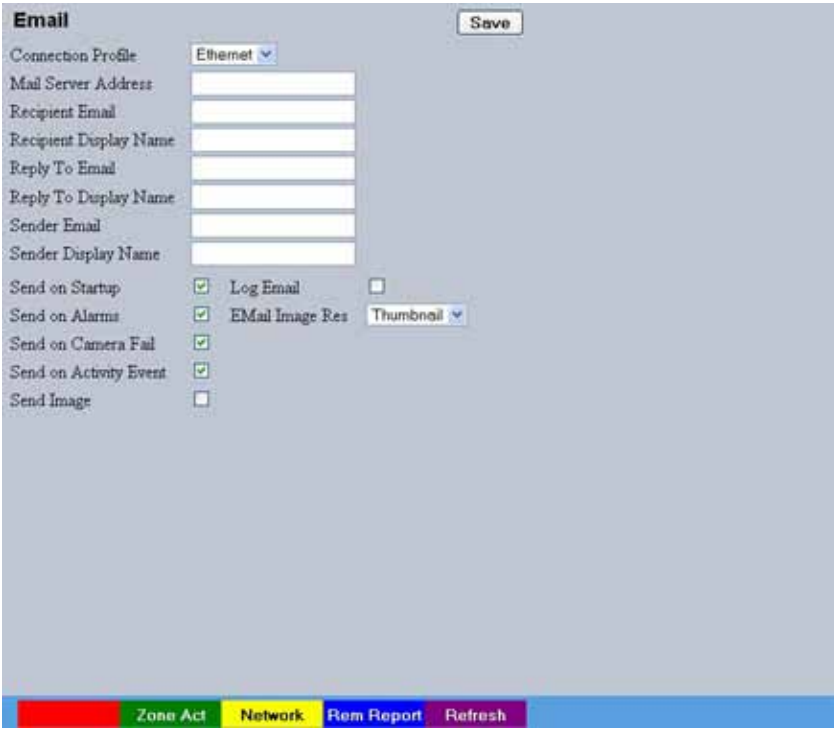


Dedicated Micros ©2010

| | |
|---|---|
| Multicast Method | Select the multicast forwarding method. Select from ‘SAP’ (to use session announcement protocol operation), ‘HTTP’ (to use cgi control operation) or ‘SAP+HTTP’ (both methods used simultaneously). |
| Enable | Tick this option to enable multicast. |
| TTL (Time to Live) | This option can be configured to limit which users can access the images. Enter one of the following numbers:<br>0 - restricts video to the same host<br>1 - restricts video to the same subnet<br>32 - restricts video to the same site<br>64 - restricts video to the same region<br>128 - restricts video to the same continent<br>255 - is unrestricted in scope |

# Email

*The unit can automatically transmit an email to an SMTP Server under numerous conditions i.e. on start up, on receipt of an alarm, camera failure etc. This allows the unit to be installed in unmanned applications where a Remote Video Response Centre (or Manager etc.) would be notified by email if any of these conditions occur.*




| | |
|---|---|
| Connection Profile | It is possible for the email to be transmitted via the Ethernet network or dial up connection (PPP 'Point to Point Protocol'). This setting presumes that a modem has been connected or configured and the unit is connected to a LAN or WAN and allocated a valid IP address. |
| Mail Server Address | This is the IP address or URL of the SMTP Server that the email will be sent to. The SMTP server will then forward this to the intended recipient. |
| Recipient Email | This is the email address of the intended recipient. |
| Recipient Display Name | This is the addressee name that will be shown in the email name field. |
| Reply to Email | This field must be configured if the recipient is to reply to an email. The unit does not accept incoming emails therefore ensure this is a valid email address. |
| Reply To Display Name | This is the 'reply to' name that will be shown in the email name field. |



Dedicated Micros ©2010

| | |
|---|---|
| Sender Email | These optional fields indicate the source of the email notification. If the fields are left blank the unit will use the system name to create a sender name. |
| Display Name (Sender) | This is the sender name that will be shown in the email name field. |
| Send on Startup | Select to send email notification on startup. |
| Send on Alarms | Select to send email notification on alarm activation. |
| Send on Camera Fail | Select to send email notification on camera fail. |
| Send on Activity Event | Select to send email notification on activation of the Activity Detection feature. |
| Send Image | Select to send accompanying image from supporting primary camera. |
| Log Email | Select to log every email transaction that the unit issues. |
| Email Image Res | Select resolution settings for images sent as 'thumbnail' attachments. Choose from: Thumbnail, LO (low res), MED (medium res) and HI (high res). |

# Remote Reporting

*This menu details the configuration requirements for the unit to report to a Remote Video Receiving Centre (RVRC) following alarm activation.*

***Note:*** *This menu will only be displayed if 'Remote Reporting' is selected in the System Settings->Features menu.*

| | |
|---|---|
| Primary Hostname | This is the IP address or URL of the initial host that the unit will transmit an alarm message to. |
| Primary Dial Profile | It is possible for the alarm message to be transmitted via the Ethernet network or a dial up connection. |
| Secondary Hostname | If the unit is unable to contact the primary host, an alternative route can be identified via a secondary host. If there is only one alarm receiving IP address, you must enter the details in both the primary and secondary connection settings. |
| Secondary Dial Profile | It is possible to select a separate dial profile for the secondary host. |
| Public (NAT) Address | This is the public IP (or domain name) for a unit connected to the Internet via a NAT Router or Firewall. This field should be left blank if NAT is not used e.g. a private network. |
| Video Server Port | This field allows the RVRC to connect to the unit through a router that is using port forwarding e.g. if the video server does not appear on port 80 (HTTP), to the external network. Enter the port number used for forwarding here if required. |



Dedicated Micros ©2010

| | |
|---|---|
| Alarm Server ref. ID | This is the reference name/ID that will be presented to the RVRC viewing application. It should therefore have some significance to the Operator. |
| Remote Alarm Reporting | This must be enabled for the unit to automatically connect on alarm. |
| Remote Cam Fail Reporting | Enabling this option ensures the unit reports camera failure on any of the inputs to the RVRC. |
| Remote Startup Reporting | This will send an alarm report when the unit starts up. Any system resets will be identified. |
| ARC Ping Enabled | Should the modem/router at the Alarm Receiving Centre be dormant, the unit will 'Ping' the ARC prior to sending reporting data. |
| Alarm Responder Port | This specifies the network port number used for reporting to the alarm server. In normal circumstances this should be left at the default value (23). |
| Dial Retry Time (secs) | If the initial connection attempt fails, the unit will wait for the specified time period (in seconds) before attempting to re-connect. |
| Dial Count | This identifies the number of times the unit will attempt to connect after a failed attempt. A setting of '0' means no limit and the unit will continue to try and connect until successful. |

# Web Cam

*Any of the video inputs on the unit can be made available for transmission to a webserver via a designated webcam server. These images can then be incorporated into a web page and accessed via a standard web browser.*

***Note:*** *This menu will only be displayed if 'Webcam Support' is selected in the System Settings->Features menu.*

| | |
|---|---|
| Server URL | This is the IP address, URL or Domain Name of the WEBCAM Server. Images will be uploaded from the unit to this server at specified time intervals. |
| Disable ICMP Discovery | When enabled, the unit will not attempt to 'Ping' the configured webserver but will begin immeadiate data transfer. |
| Root Directory | This is the main/root directory on the webcam server where the image directory will be located. |
| Image Directory | This directory will be created when the initial image is uploaded to the webcam server, it is the directory where all images will be saved on the server. |
| Image Filename Prefix | This is an identifier for images sent from the unit and will be stored as a prefix to the file name. |
| Username | If it is necessary to use an authentication process to access the webcam server, enter the relevant username here. |
| Password | If it is necessary to use an authentication process to access the webcam server, enter the relevant password here. |

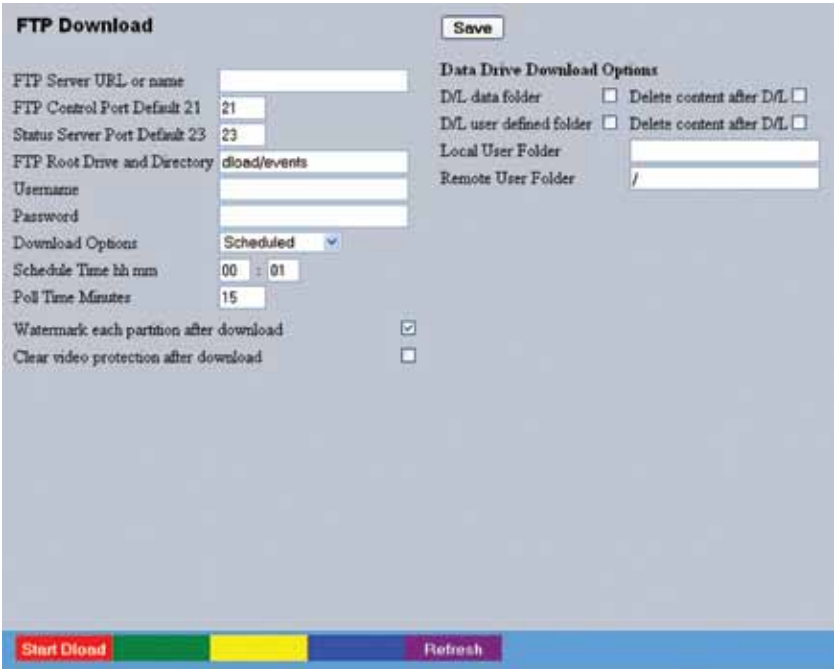


Dedicated Micros ©2010

| | |
|---|---|
| Update Interval | This is the minimum update interval between each image transmitted from the unit. |
| Select Camera Input | This allows individual video inputs to be enabled for uploading to the webcam server. |
| Webcam Enable | The Web Cam function can be: ‘Always Enabled’, ‘Enabled when system SET’, ‘Enabled when system UNSET’ or ‘Disabled’. |
| Webcam Resolution | Select a High, Medium or Low webcam resolution settings to best match the monitor settings of the operator receiving the images. |

# FTP Download

*The unit can archive images to a central FTP (File Transfer Protocol) server. This could be on receipt of an alarm, activation of the Activity Detection or at a scheduled time to backup recorded video. Using FTP in a multi-unit application ensures that all files are stored in one central location for each of the units, offering efficient file management and easy review capabilities.*




| | |
|---|---|
| FTP Server IP URL or name | This is the IP address, URL or name of the FTP server the unit will connect to for FTP image download purposes. |
| FTP Control Port | The default port for FTP use is port 21. If this port has already been allocated on the network, it is possible to identify and allocate an alternative port. |
| Status Server Port Default | The default port for the Server Status function is port 23, if this port has already been allocated on the network, it is possible to identify and allocate an alternative port number. |
| FTP Root Drive and Directory | This is the directory where the images are to be stored, it is recommended that a name associated with the unit be used for ease of retrieval. |
| Username | If it is necessary to use an authentication process to access the FTP server, enter the relevant username here. |
| Password | If it is necessary to use an authentication process to access the FTP server, enter the relevant password here. |

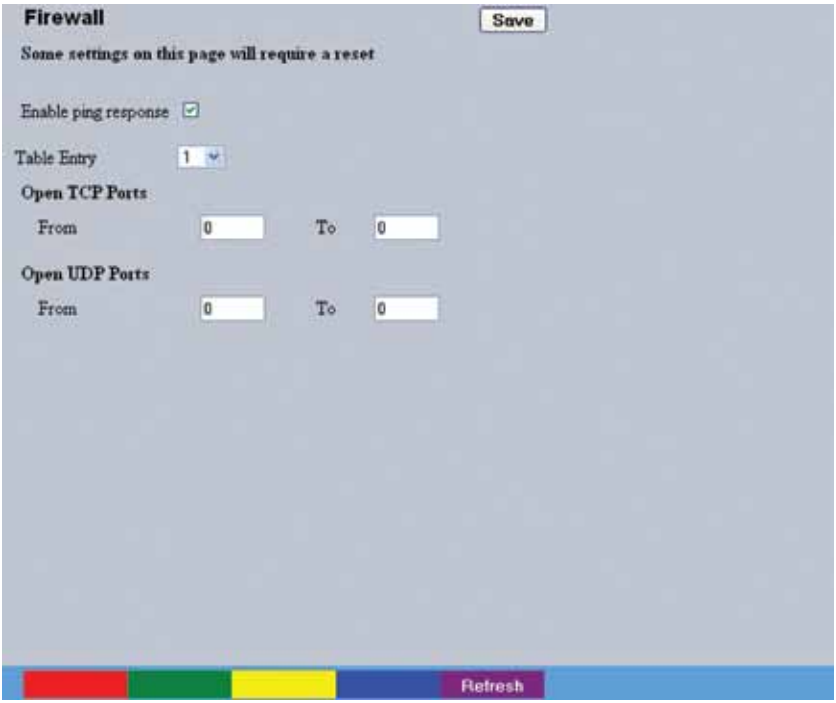


Dedicated Micros ©2010

| | |
|---|---|
| Download options | Select one of the following options from the drop down menu: |
| | On Connection — This will automatically start the Archive download when the unit detects the archive destination is present. |
| | Scheduled — It is possible to force the unit to archive images at a scheduled time, enter a time to activate this function each day. |
| | Polled — This will set the unit to activate archive download at regular intervals, the time is in minutes and is the period between the end of one archive download and the start of the next. |
| | Manual only — The archive process will only commence when the user initiates the action. |
| Schedule time hh mm | If 'Scheduled' has been selected in Download Options, enter a time for the download to take place each day. |
| Poll time Minutes | If 'Polled' has been selected in Download Options, enter the number of minutes which will elapse between the conclusion of one archive download and the start of the next. |
| Watermark each partition | This enables a watermark to be generated and stored in a text file downloaded with the video to the FTP server (for each image partition). This watermark is logged in the log file. |
| Clear video protection after download | This automatically clears the image protection from successfully downloaded images. |

# Firewall

*This menu allows the user to block access to the unit via specific network port(s).*




| | |
|---|---|
| Enable Ping Response | Enabling this option will allow an external client to receive a response when attempting to 'ping' the unit. Disabling this option will make the unit less visible on the network. |
| Table Entry | Up to 32 Configuration settings may be entered. |
| Open TCP ports | This option can identify which system TCP ports are available. If a host tries to communicate with the unit using a TCP port that is not within the 'open' range (even with a valid IP address), access will not be granted to the unit. The enabled ports can be a range or single port address, if a single port is needed then enter the same port number in the to and from section. |
| Open UDP ports | This option can identify which system UDP ports are available. If a host tries to communicate with the unit using a UDP port that is not within the 'open' range (even with a valid IP address), access will not be granted to the unit. The enabled ports can be a range or single port address, if a single port is needed then enter the same port number in the to and from section. |



Dedicated Micros ©2010

# Features & Text

*The Features and Text menus allow activation of the units analytics and third party IP camera features plus configuration of the unit's text in image and keywords functionality. Refer to the individual menus for further details.*

*The Features menu allows activation of the units analytics and third party IP camera features. . Please call Dedicated Micros on + 44 (0) 845 600 9500 for further information.*

*The Text In Image page allows the unit to integrate text data with recorded images i.e. a cash register with a camera positioned at the point of sale.*

*The Keyword page can be used in conjunction with the Text in Image function. Keywords can be entered, which when detected, will trigger an alarm. Up to 30 keywords can be created.*

# Analytics & Third Party IP Cameras

*Dedicated Micros has created a range of analytics solutions designed to work with the* **Analytics***Capable SD Advanced. The range of applications include: Automatic Number Plate Recognition (ANPR), Object Left and Removed, Access Control, People Counting, and Perimeter Protection. The unit also has a Third Party IP Camera feature which when unlocked, allows for the deep integration of non Dedicated Micros IP Cameras. Incoming third party IP camera streams in JPEG format can be recompressed to MPEG or an alternative Quality/Resolution setting. Third party IP cameras can then also be used with Dedicated Micros advanced Video Motion Detection (VMD) and Activity Detection features.*

- *For further information regarding the range of Dedicated Micros Analytics solutions and the Third Party IP Camera feature, please contact Dedicated Micros Customer Services on: + 44 (0) 845 600 9500.*


Dedicated Micros ©2010

# Installing An Advanced Feature License

*To activate an* **Analytics***Capable function or the Third Party IP Camera feature, firstly contact Dedicated Micros Customer Services on Tel +44 (0) 845 600 9501 or contact us via our website: 'www.dedicatedmicros.com'.*

*The Customer Services team will provide you with details of how you can unlock the* **Analytics***Capable potential of your unit or activate the Third Party IP Camera feature.*

Before unlocking the Third Party IP Camera feature or any **Analytics***Capable* function, you will need both a License key and an Activation code (along with your Feature System code). This information can only be obtained by contacting the Dedicated Micros Customer Services team on Tel +44 (0) 845 600 9501.

After initial contact, Dedicated Micros will provide you with an email containing the License key.

You then need to contact the Customer Services team again with both the License key and also your unit's unique Features System code. The Features System code can be found in the Activate New Features menu (see the 'Activate New Features' section of this document for guidance).

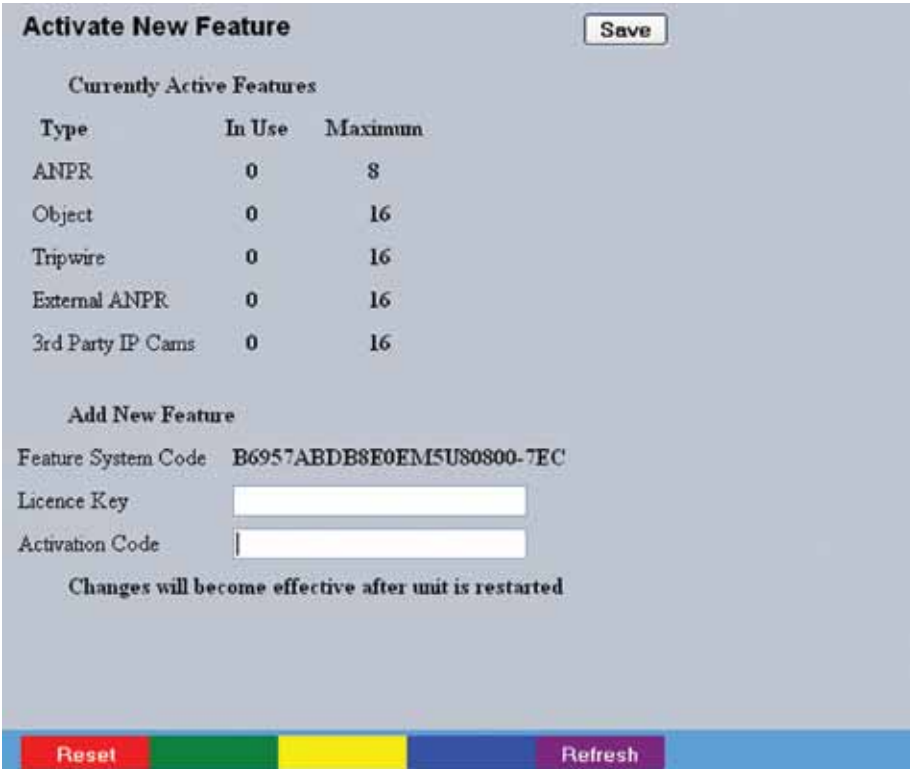
When you have provided our Customer Services team with the License key and the Features System code, you will be given the Activation code.

Finally enter both the License key and the Activation code into the Activate New Feature menu and select 'Save'.

# Activate New Feature

*The Activate New Feature menu allows new* **Analytics***Capable licenses to be added to your unit and the Third Party IP Camera feature to be unlocked. It details the Features System Code that Dedicated Micros Customer Services require to provide your Activation Code. Also detailed are all advanced features currently activated on the unit (and the maximum number of each type of license allowed).*

***IMPORTANT:*** *To open the 'Activate New Feature' menu, navigate to the Features & Text->Features menu and select the Activate (Purple) option.*




| | |
|---|---|
| Currently Active Features | Any advanced features currently installed on the unit will be detailed here. |
| Type | The available variants of feature licenses will be listed. |
| In Use | The total number of each license type currently installed on the unit will be displayed. |
| Maximum | This shows the maximum amount of each license type that can be installed on the unit. |

***Note:*** **Analytics**Capable licenses *are purchased per unit, with the exception of ANPR licenses which are per camera channel.*

| | |
|---|---|
| Features System Code | This code ***must be*** provided to the Dedicated Micros Customer Services team (Tel +44 (0) 845 600 9501) to obtain your Activation code. On receipt of this information, DM will provide you with your Activation code. |



Dedicated Micros ©2010

| | |
|---|---|
| License Key | Enter the License key details here. The License key will be provided by Dedicated Micros Customer Services team. |
| Activation Code | Enter the Activation Code details here. |

***Note:*** *Both the License Key and Activation Code are case sensitive. Be careful to differentiate between number '0' and letter 'O'.*

***Note:*** *Navigate to System Settings->PowerScript Mgmt to view DM PowerScript software currently active on your unit (and limit which scripts will automatically run at start-up). When any* **Analytics***Capable licenses have been activated, the 'analytics.c' option must remain checked for the feature(s) to operate correctly.*

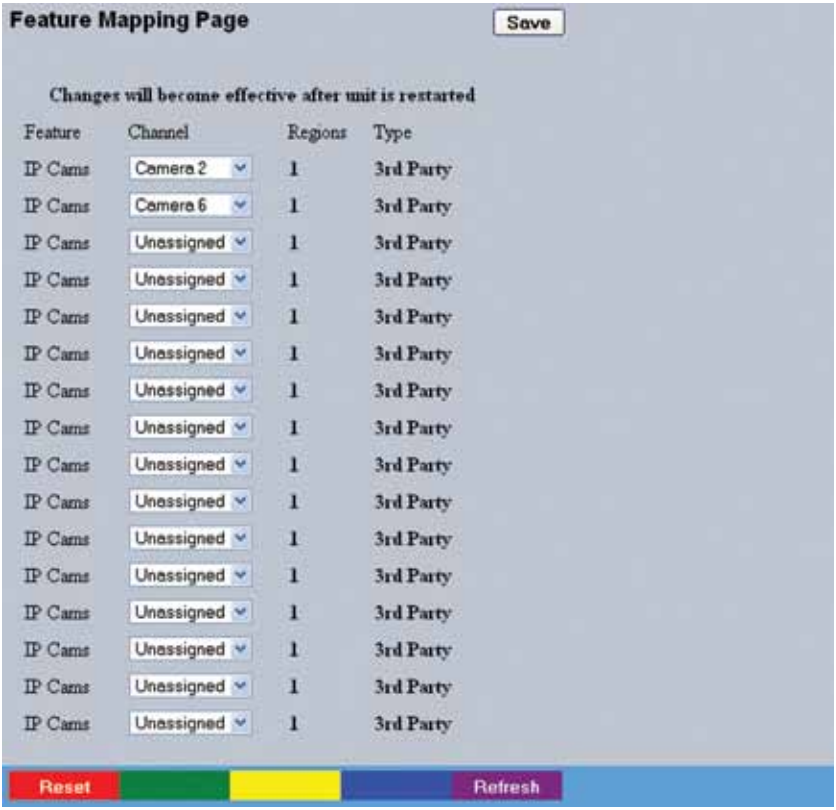
***To*** *view the PowerScript Mgmt page it is necessary to install and run webpage software release version 1.0 (2285) or above. The latest software release for your unit can be downloaded from the Dedicated Micros website: www.dedicatedmicros.com/software_release/index_firmware.php*

***IMPORTANT:*** *For* **Analytics***Capable features to function correctly, the 'Enable Keyword' function* ***must be*** *enabled on the unit. Navigate to the 'System Settings->Features' menu and ensure the 'Text In Image' option is selected. Then navigate to the 'Features & Text->Text In Image' menu. Set the Enable Keywords option to 'Enable'.*

# Feature Mapping Page

*The following menu allows purchased advanced feature licenses to be assigned to specific Third Party IP camera camera channels*

***Important:*** *This menu will only be available when an* **Analytics***Capable license or the Third Party IP camera feature has been unlocked.*




| | |
|---|---|
| Feature | All installed advanced licenses will be listed by type i.e. ANPR, Tripwire, IP Cams etc. |
| Channel | Assign the license to a camera channel via the drop down list. |
| Region | This is the number of detection areas available for each license. For all licence types there are 16 detection zones available (except ANPR licenses were only 1 is available). |

***Important:*** *'Region' is not relevant for the Third Party IP Camera feature.*

| | |
|---|---|
| Type | Details the Feature type currently installed. |

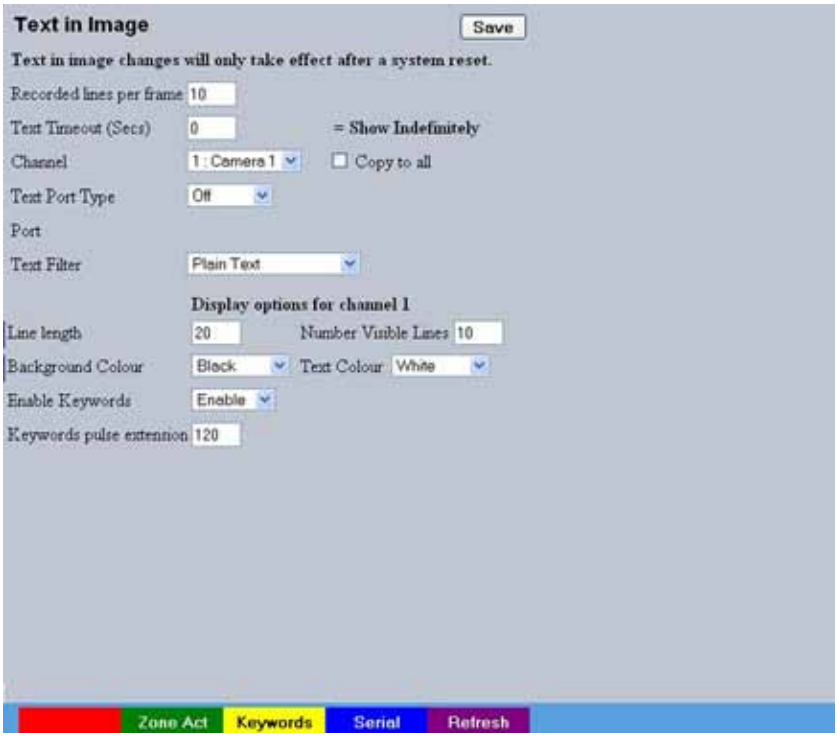


Dedicated Micros ©2010

# Text In Image

*It is possible to integrate the unit into a system were text information can be stored with relevant images for review. This would be most useful in a Retail or Finance application were text data originating from a cash register could be displayed in real time with the video images of the same Point of Sale.*

***Note:*** *This menu will only be displayed if 'Text in Image' is selected in the System Settings->Features menu.*



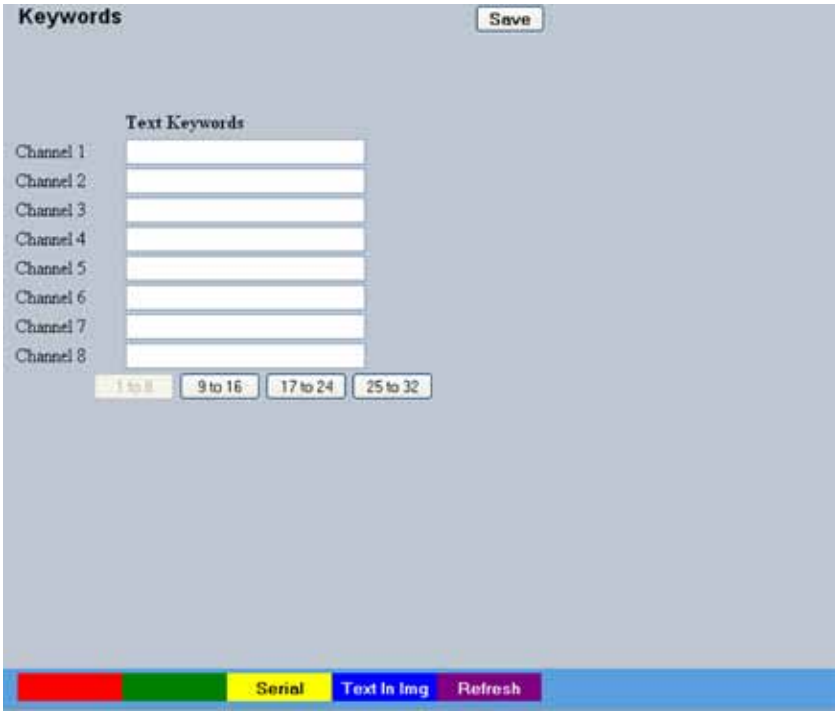

| | |
|---|---|
| Recorded lines per frame | This controls how many lines of text are stored on the server, and not how many are displayed on screen. This allows more data to be saved than is shown. |
| Text Timeout | This setting controls how long, in seconds, the text is shown on screen (selecting 0 will show the text indefinitely). |
| Channel | Select the camera input for configuration from the drop down list. |
| Copy To All | Select to copy the current text in image settings to all camera channels. |
| Text Port Type | Select the input source for Text in Image data. Select 'Off' to switch the function off, select 'Network to use the unit's Network port or 'Serial' to use one of the unit's serial ports (see 'Port' below). |
| Port | All serial ports on the unit support the option for Text In Image. For serial transmission ensure one of the serial ports is configured appropriately, refer to System Settings->Serial Ports'. Select the configured port from the drop down list. |

| | |
|---|---|
| Text Filter | Select the text filter option from the drop down list. The options are: Plain Text (default), RAW, EPSON, Laserjet, DM POS Receipt, DM POS Journal, TVC-1066 |
| Line length | This identifies the length of the lines that will be stored with the image. The default setting is 20 characters i.e. typically full screen. |
| Number Visible Lines | To enable the text information to be viewed successfully, it is necessary to establish how many lines of text will be visible on screen. |
| Background Colour | A black background box appears by default around the text. It is possible to change the colour of this box. Select from the drop down list. |
| Text Colour | The colour of the displayed text can be changed. Select from the drop down list. |
| Enable Keywords | This enables or disables the Keyword feature, allowing the unit to treat certain pre-programmed words received via the text stream as event triggers.Refer to 'Keywords' for guidance on creating Keyword triggers. |
| Keywords pulse extension | This time period allows multiple instances of a word received within a period of time to be treated as a single event (i.e. if a configured Keyword is detected again within the first Keyword's pulse extension period, the second (and following) occurrences of the word will be ignored). |


Dedicated Micros ©2010

# Keyword

*This menu allows specific keywords received via the text stream to be configured and enabled as event triggers. The 'Enable Keywords' function need to be activated in the 'Text in Image' menu for this feature to operate.*



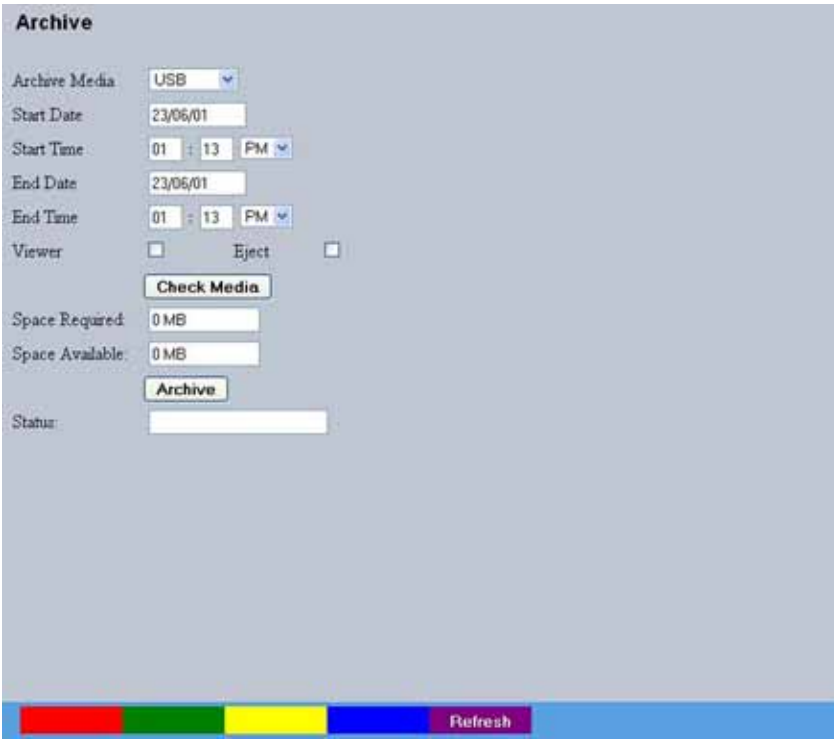

| | |
|---|---|
| Text Keyword | The unit can be configured to react to defined keywords appearing in text data and treat them as alarm zone inputs. In turn this generates events in the event database. The advantage of this feature is that it allows the user to see exactly which keyword triggered an alarm. A total of 32 Keywords can be configured and each can be up to 20 characters in length. All of the keywords will be active on the selected Zone keyword channel, *refer to "Zone Input -> Input"*. |

***Note:*** *Increasing the number of keywords can significantly increase the number of stored events.*

***Note:*** *Refer to 'Text In Image' and 'Serial Ports' for further guidance on integrating text data.*

# Archive

*This menu allows Event database information to be downloaded to an inserted DVD-R/CD-R or connected USB media device.*




| | |
|---|---|
| Archive Media | Select to archive to either a DVD-R/CD-R or USB media device. |
| Start Date | Enter a start date for the event download. |
| Start Time | Enter a start time for the event download. |
| End Date | Enter an end date for the event download. |
| End Time | Enter an end time for the event download. |
| Viewer | When selected, the unit will add a Viewer program to the archive. It is recommended that this option be selected as it will ensure the downloaded video images can always be successfully viewed. |
| Check Media button | Selecting this option will display the space required (in megabytes) for the chosen event period to be fully downloaded. The space currently available on the CD-R/DVD-R or USB device is also shown. |
| Archive Space Required | Space required for archive download. |
| Archive Space Available | Space currently available on CD-R/DVD-R or USB device. |
| Archive button | Select this button to begin the Archive process. |
| Status | During Archiving, status messages will be displayed detailing the archive process. |



Dedicated Micros ©2010

# Oracle Dome Configuration

*If a camera channel has a Dedicated Micros Oracle dome camera connected, the Oracle Configuration menus can be used to view settings and establish Presets, Patrols and Privacy Masks. Refer to individual menus for further details.*

*The Status page details fundamental information regarding the status of the Oracle Dome i.e. the model type and the version of software/firmware installed.*

*The Presets page allows Preset positions to be configured and stored.*

*The Sectors page enables the cameras 360 degree field of view to be effectively split into 32 segments. These segments can be named and displayed via the On Screen Display (OSD Advanced).*

*The Patrols page allows camera patrol sequences to be established and configured. The Patrol feature uses established preset positions to automatically pan, tilt and zoom the camera in the selected sequence.*

*The Privacy Masks page allows privacy masking to be established and configured. The Privacy Mask feature can be used to 'blank out' sensitive or private areas which appear in the cameras field of view.*

*The OSD Advanced Settings page allows the Oracle Dome OSD Advanced (On Screen Display) information to be configured. This text will accompany displayed camera images in the Viewer menus.*

*The Camera Settings page enables features such as white balance and shutter speed to be configured.*

*The Event Settings page allows actions to be established and configured for the Oracle Dome camera following an alarm. A Home position can be established and the delay time set for what period of inactivity is required before the camera will be sent to its home position.*

# Status

*This menu details information regarding the status of the Oracle Dome, notably the model type, current temperature and the version of software/firmware installed.*

| | |
|---|---|
| Camera | Select a camera channel. The menu will only display successfully if the chosen camera channel has an Oracle Dome camera connected. |

***IMPORTANT:*** *All subsequent Oracle Configuration menus will relate to the camera selected here. Camera selection is only possible via this Status menu.*

| | |
|---|---|
| Camera Title | Title assigned to the selected camera channel. |
| Dome Model | Details the product model. |
| Dome Serial Number | Identifies the serial number of the specific camera. |
| Total Time On | Details the operational life time of the camera to date. |
| Total Time Active | Details the total time the unit has been active (in motion). |
| Time Since Restart | Details the time since the camera was last reset. |
| Current Temp | Details the current temperature of the camera unit. |
| Max Temp | Details the maximum temperature the camera unit has reached. |
| Min Temp | Details the minimum temperature the camera unit has reached. |
| Fan 1 Status | Details the operational status of installed Fan 1. |
| Fan 2 Status | Details the operational status of installed Fan 2. |
| Relay State | Details the operational status of the camera unit's relay. |

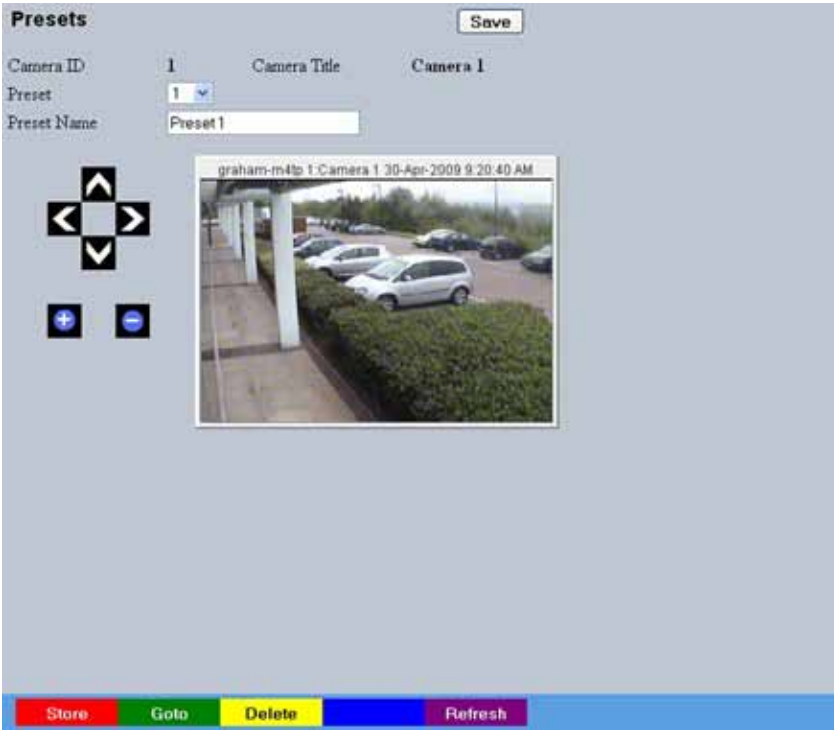


Dedicated Micros ©2010

| | |
|---|---|
| Software Version | This identifies the version of software the camera unit is running. |
| Firmware Version | This identifies the version of firmware the camera unit is running. |
| Bootloader Version | This identifies the bootloader version of the camera unit is running. |

# Presets

*This menu allows Preset positions to be configured and stored for the Oracle Dome camera.*



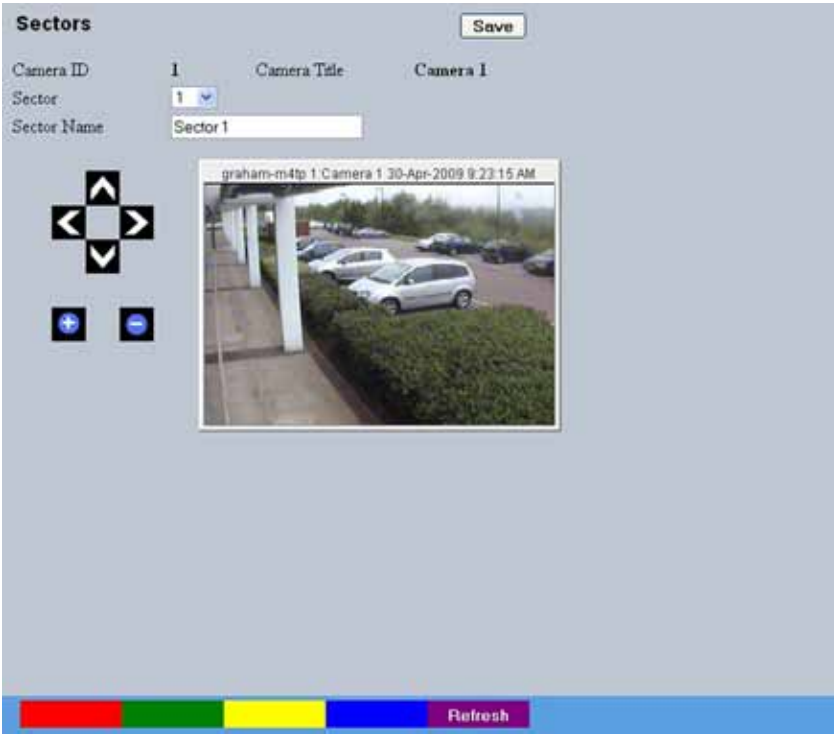

| | |
|---|---|
| Camera ID | Selected camera channel. |
| Camera Title | Title assigned to the selected camera channel. |
| Preset | Select a preset number (1 to 100). |
| Preset Name | Enter a recognisable name for the Preset (up to a maximum of 25 characters). |
| + | Use the + button to zoom the camera view IN. |
| - | Use the - button to zoom the camera view OUT. |
| Navigation Buttons | Use the four navigation buttons to position the camera view. |
| Save (Grey) | Select to save the entered preset title to the unit and the Oracle Dome camera memory. |
| Store Preset (Red) | Select this button to store the current preset position to the Oracle Dome camera's memory. |
| Goto Preset (Green) | Select this button to immediately send the camera to the currently stored preset position. |
| Delete Preset (Yellow) | Select this button to delete the currently displayed preset configuration. |



Dedicated Micros ©2010

# Sectors

*This menu allows the Oracle Dome cameras 360 degree field of view to be split into 32 segments. These segments can be named and set to accompany the displayed camera image via the OSD Advanced menu. They can be used to aid an Operator in quickly identifying the current camera position.*




| | |
|---|---|
| Camera ID | Selected camera channel. |
| Camera Title | This is the title assigned to the selected camera channel. |
| Sector | Select from sector 1-32. |
| Sector Name | Enter a name for the selected sector (up to a maximum of 25 characters). |
| + | Use the + button to zoom the camera view IN. |
| - | Use the - button to zoom the camera view OUT. |
| Navigation Buttons | Use the four navigation buttons to position the camera view. |

Dedicated Micros ©2010

# Patrols

*This menu allows camera patrol sequences to be established and configured for the Oracle Dome camera. The Patrol feature utilises established preset positions to automatically pan, tilt and zoom the camera in the selected sequence.*

| | |
|---|---|
| Camera | Selected camera channel. |
| Camera Title | Title assigned to the selected camera channel. |
| Patrol | Up to four Patrol sequences can be established. |
| Patrol Name | Enter a recognisable name for the Patrol. |
| 1-32 | Up to 32 individual positioning manoeuvres can be added to a Patrol. |

***Note:*** *Selecting one of the 1-32 buttons will send the camera to that Preset position.*

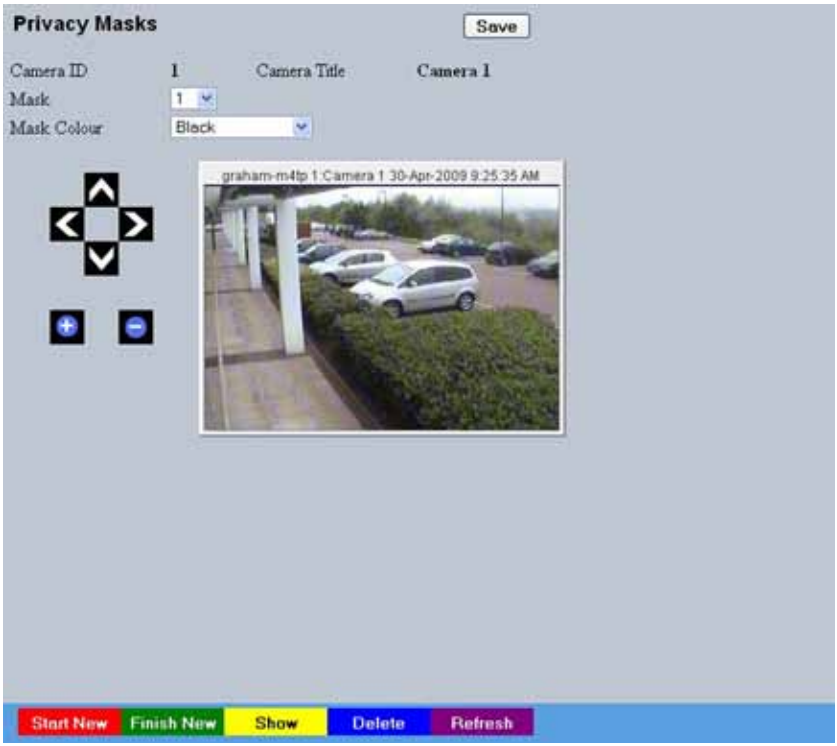
| | |
|---|---|
| Preset | Select a pre-established Preset. |
| Speed | Select the Speed the Patrol will progress to the next Preset position (the speed can be set as a percentage of maximum capability). |
| Dwell | Select the Dwell time (in seconds) the Patrol will remain at this Preset position. |
| Save (Grey) | Select to store the preset sequence to the unit and the Oracle Dome camera memory. |
| Play (Red) | Select to activate (play) the current patrol sequence. |



Dedicated Micros ©2010

# Privacy Masks

*This menu allows Privacy Masks to be established and configured for the Oracle Dome camera. The Privacy Mask feature can be used to 'blank out' sensitive or private areas which appear in the cameras field of view.*




| | |
|---|---|
| Camera | Selected camera channel. |
| Camera Title | Title assigned to the selected camera channel. |
| Mask | Up to 24 separate masked areas can be created. |
| Mask Colour | The colour of the mask can be selected from the drop down list. The default is black. |

***Note:*** *Select 'Start New' (Red) to begin creation of a privacy area. A black rectangle will then be displayed superimposed across the camera view. It is recommended that the camera be navigated to the exact centre of the area requiring the privacy mask before pressing the 'Start New' button.*

| | |
|---|---|
| + | Use the + button to zoom the camera view IN. |
| - | Use the - button to zoom the camera view OUT. |
| Navigation Buttons | Use the four navigation buttons to position the camera view. |

***Note:*** *When 'Start New' has been selected, the +/- and Navigation buttons can be used to set the size and shape of the Privacy Mask.*

| | |
|---|---|
| Save (Grey) | Select to store the mask colour. |
| Start New (Red) | Select this option to begin creation of privacy mask. |
| Finish New (Green) | Select this option to finish creation of privacy mask. |

Dedicated Micros ©2010

| | |
|---|---|
| Show (Yellow) | Select this option to show camera view with existing privacy mask displayed. |
| Delete (Blue) | Select this option to delete the currently displayed privacy mask. |


Dedicated Micros ©2010

# OSD Advanced Settings

*This menu allows the Oracle Dome OSD Advanced (On Screen Display) information to be configured. This text will accompany displayed camera images in the Viewer and on a local monitor.*

| | |
|---|---|
| Preset Title Position | Select desired position to locate the Preset Title information. |
| Sector Title Position | Select desired position to locate the Sector Title information. |
| PTZ Display Position | Select desired position to locate the PTZ Display information. |
| Alarm Name Position | Select desired position to locate the Alarm Name Position information.<br>For all above functions, the available positions are:<br>Top Left, Top Right, Bottom Left, Bottom Right and Off (No information displayed).<br>All options are then split into three further sections; 1,2 and 3. This relates to the display line i.e. Top Left 1 would be the very top line, Top Left 2 would be the line below etc. This enables information to be 'stacked' in one segment of the screen. |
| Engineer Display | Toggle to switch the Engineer Display text On/Off. This function is intended for future development. |
| Save (Grey) | Select to store OSD Advanced Settings to the unit and the Oracle Dome camera memory. |

Dedicated Micros ©2010

# Camera Settings

*This menu allows settings for the Oracle Dome camera to be established and configured.*

| | |
|---|---|
| Camera | Selected camera channel. |
| Camera Title | Title assigned to the selected camera channel. |
| Backlight Comp | Select to activate Backlight Compensation. This feature compensates for back-lit scenes by enhancing objects which would previously have been in silhouette. |
| Auto Slow Shutter | The Oracle Domes auto slow shutter feature enables the camera to automatically decrease the shutter speed in low light settings to help maintain quality of displayed images. |
| Auto Focus | The Oracle Domes Auto Focus feature enables the camera to best focus on its current view. Select to activate. |
| Auto Flip | When the Oracle Domes Auto Flip feature is activated, it will rotate a camera 180 degrees when it reaches its maximum upper or lower extremity i.e. pointing directly upwards or downwards. This enables a camera to continue a tilt manoeuvre i.e. if tilting in an upwards direction, when the camera is pointing directly up, it will rotate 180 degrees and begin tilting down. If unselected, a camera will stop when it reaches its maximum upper or lower extremity. |
| HyperD Mode | If the connected Oracle Dome camera is part of the HyperD non-wide dynamic range, select to activate the unique wide dynamic function. |


Dedicated Micros ©2010

| | |
|---|---|
| Digital Zoom | Select to activate the Digital Zoom function e.g. the camera will zoom within the actual image. |
| Optical Zoom Limit | Select to limit the Oracle Domes optical zoom function. By default '100x' is selected and the camera can zoom to its maximum capabilities. The optical zoom function can be limited to between 75% and 100% magnification. |
| ICR | Oracle Domes with day/night cameras have an Infrared Cut Removal (ICR) function which can enhance the camera's sensitivity in low light conditions as well as allowing infrared illumination to be used (infrared is blocked by the IR cut filter). When ICR is ON, the camera switches to monochrome mode, the IR cut filter is removed and the camera is at its most sensitive. The default setting for the camera is AUTO ICR where the filter is controlled automatically dependent on the scene brightness determined by the camera. The camera can be forced to stay in colour mode by setting ICR to OFF, or can be forced into mono with maximum low light sensitivity by setting ICR to ON.<br>Alternatively ICR switching can be triggered in response to an alarm input. This allows a photocell sensor to be connected to one of the dome's alarm inputs to control the ICR. This method can be used to avoid instability that may occur when the camera controls the ICR switching in marginally low light conditions. Removing the IR cut filter due to low light can cause enough of an increase in scene brightness and video level to make the camera return the IR cut filter and switch immediately back to colour mode (at which point the video level drops and the process is repeated). |
| White Balance | The Oracle Domes White Balance feature enables the camera to compensate for different lighting scenarios which can effect the colour quality of the displayed image. Select 'Auto' for the camera to auto-compensate for white balance depending on current view. Select 'Indoor' to permanently set for best results in an indoor setting. Select 'Outdoor' to permanently set for best results in an outdoor setting. |
| Exposure | The Oracle Domes Exposure setting can be set to maintain optimum contrast settings for the viewed image/camera location. Select 'Full Auto' for the camera to auto-compensate for best exposure settings depending on current view. Select 'Manual' to manually configure exposure settings. Select 'Shutter Priority' to manually enter the shutter speed. |
| Shutter Speed | If the Exposure feature is to be manually configured, enter the shutter speed settings. |
| Coax Gain | If the camera feed to the unit originates from the coax output of the Oracle Dome camera, the video signal can be boosted by increasing the coaxial gain setting. The default gain is 0 to increase it select a value between 1 and 100 until the optimum image quality is reached. |
| Coax Lift | If the camera feed to the unit originates from the coax output of the Oracle Dome, the video signal can be boosted by increasing the coaxial lift setting. Coaxial lift differs from gain as only the high frequency end of the video signal spectrum is boosted, to compensate for the greater attenuation of high frequencies in coax cables. The default gain is 0 to increase it select a value between 1 and 100 until the optimum image quality is reached. |
| UTP Boost | If the camera feed to the unit originates from the twisted pair output of the camera. Two levels of boost can be activated to improve image quality by compensating for losses in the cables. |

Dedicated Micros ©2010

# Event Settings

*This menu allows actions to be established and configured for the Oracle Dome camera following an alarm event. A Home position can be established for the camera and the delay time set for what period of inactivity is required before the camera will be sent to its home position.*

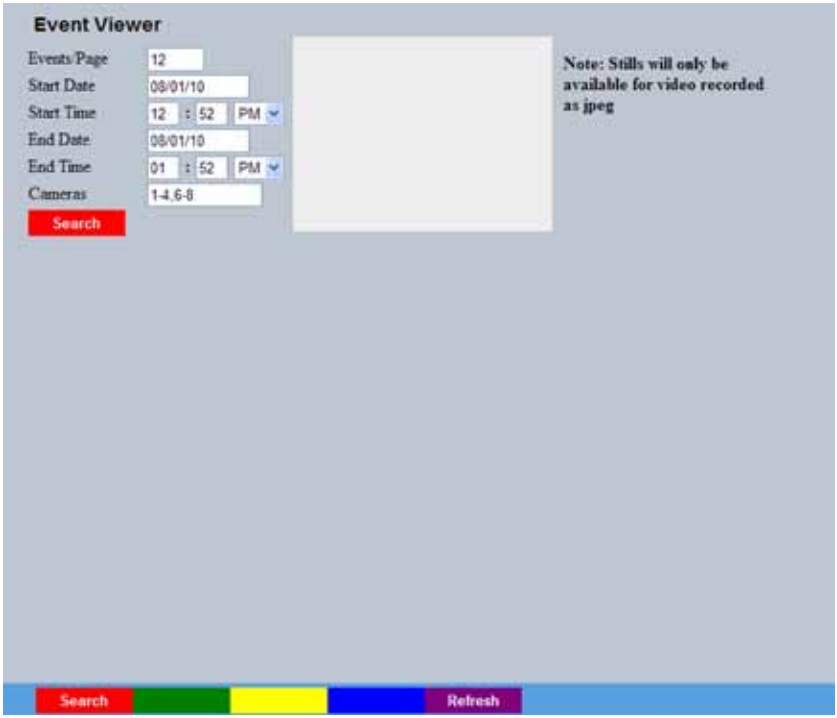
| | |
|---|---|
| Camera | Selected camera channel. |
| Camera Title | Displays the title assigned to the selected camera channel. |
| Event Name | If required, enter a specific name for the alarm event. |
| Type | Select the alarm type from:<br>EOL (End of Line), NC (Normally Closed), NO (Normally Open) or Disabled. |
| Action | Select a preset position or a patrol action for the camera upon alarm event. |
| Relay | Select an action for the relay. Select ‘Momentary’ for the relay to momentarily switch state. Select ‘Duration’ to switch relay status for the duration of the alarm. |
| Home (Grey) | Select to send the camera to its predetermined home position. |
| Action | Select a preset or patrol from the accompanying drop down list. This preset/patrol will now be set as the cameras ‘home’ position. |
| Delay | Select the time ( in seconds) for which the camera is inactive i.e. no operator input, before returning to its home position. |
| Save (Grey) | Select to store Event Settings to the unit and the Oracle Dome camera memory. |


Dedicated Micros ©2010

# Event Search

*The Event Search menu allows recorded event images to be quickly searched for and reviewed. The Search criteria can be limited to a specific date/time and/or individual cameras.*

***Note:*** *Event Search will only be available when the 'Enable Event Search Page' option is enabled via the System Settings->Features menu.*




| | |
|---|---|
| Event/Page | Select the amount of event Stil images (thumbnail size) to be displayed per results page. |
| Start Date | Enter a Start Date for the Event Search. |
| Start Time | Enter a Start Time for the Event Search. |
| End Date | Enter an End Date for the Event Search. |
| End Time | Enter an End Time for the Event Search. |
| Cameras | Select the camera channel(s) to be included in the Event Search. A range of cameras can be selected by entering a hyphen between the first and last required camera i.e.1-8. A selection of individual cameras can be chosen by entering a comma between each camera i.e. 1,3,5,8. Events captured by cameras not in this selection will be ignored. |
| Search (Red) | When the Event Search parameters have been entered, select 'Search'. |

## *Event Search Results*

*After selecting 'Search' (Red), a still image of each captured event (within the chosen search criteria) will be displayed. It may be necessary to scroll through the results pages to view all events. if the number of events exceeds the events displayed per page (configured in Event/Page).*

Click on the thumbnail image to playback an event. That event will then playback in the window at the top of the menu.

***Note:*** *To zoom into the event currently in playback mode, right click it with the mouse. The 'Set Zoom Level' option will be displayed. The image can be set to display at up to 800% of its recorded size. Note that the view window will not increase in size, use the scroll bars to navigate the enlarged image.*

***IMPORTANT:*** *Still event images will only be available for video recorded in JPEG mode (MPEG4 thumbnail Stills will appear 'blank'); however event data recorded in either JPEG or MPEG4 mode can be replayed.*



Dedicated Micros ©2010

# Unit Operation

*The unit can be operated via the Viewer menus and the enclosed IR Remote Control, the optional keyboard or with a USB mouse. They can also be viewed and accessed remotely via the webpages and the 'Viewer' menu option.*

# Operating the Viewer

*Navigation is via a colour coded softkey system. The coloured menu provides an intuitive approach to operator and installer use. The coloured keys on the IR Remote Control correspond to the menu options displayed on screen.*

***Note:*** *The screen images shown throughout this section are those displayed on a local monitor. If viewing remotely via the webpages, the menu layout will differ slightly.*

*The function of the keys will change according to whether the unit is in Live or Playback mode.*

Overleaf are described the available Viewer menu pages. To display the colour coded menu options, press the OK button on the IR Remote Control or click the mouse button.

## View Control

*The View Control page allows connected video inputs to be displayed full screen or in Quad/Multi way display format.*

| | | |
|---|---|---|
| Red | Full | Show currently selected camera full screen. |
| Green | Quad | Displays four images on-screen, putting the currently selected camera in the top left segment of the four, and will increment all cameras by one if pressed again i.e. if cam 1 is shown top left, cam 2 top right etc. then the views will increment to cam 2 top left, cam 3 top right etc. |

***Note:*** *When a camera button is pressed to select a new camera, the new selection will be displayed in the top left hand corner of the display. The next three connected cameras will be displayed in the following three positions.*

| | | |
|---|---|---|
| Yellow | Multi | By default displays nine images on-screen, putting the currently selected camera in the top left segment, followed by the next eight cameras and will increment all cameras by one if pressed again i.e. if cam 1 is shown top left, cam 2 adjacent etc. then the views will increment to cam 2 top left, cam 3 adjacent etc. |
| Blue | Map | Displays either the default camera selection map or a specific site map (if one has been configured) with 'hotspots' showing camera locations. A camera can be viewed by selecting the corresponding hotspot. |
| Purple | Next | Opens the next page of the Viewer menu. |

***Note:*** *For information on creating Camera Selection maps. Refer to the Display Setting->Map Config' section for further information.*


Dedicated Micros ©2010

## *Video Control*

*The Video Control page offers video playback functions i.e. play, pause, rewind and fast forward.*

| | | |
|---|---|---|
| Red | II | Freezes current video display. |
| Green | << | Rewinds current video. |
| Yellow | > | Plays from current position. |
| Blue | >> | Fast forwards video up to current recording position. |
| Purple | Next | Opens the next page of the Viewer menu. |

## *Selection Page*

*The Selection page allows access to various image and event playback functions.*

| | | |
|---|---|---|
| Red | Play | Switches the selected camera(s) shown on screen into Play mode. |
| Green | Goto | Opens the GoTo menu. |
| Yellow | Event | Displays the Events menu. |
| Blue | Menu/Setup* | Opens the Configuration menu pages. |

***IMPORTANT:*** *Selecting this option will exit the Viewer menus. This will be logged in the User Activity Log as the current user terminating the session, refer to 'Appendix C' for further information regarding the User Activity Log.*

| | | |
|---|---|---|
| Purple | Next | Opens the next page of the Viewer menu. |

***** *'Menu' will be displayed in the local viewer, 'Setup' will be displayed in the remote viewer.*



Dedicated Micros ©2010

## *Map Options*

*The Map page allows access to available Cameras via the displayed hotspots.*

| | | |
|---|---|---|
| Blue | Map | Displays a map showing available cameras. If using the default numeric selector, choose a number to access the correspondingly numbered camera. The default numeric selector map can be replaced by a gif/jpeg image. The image can include 'hotspots' which link to available cameras. Cameras are then selected via the hotspots. |

***Note:*** *For information on creating Camera Selection maps. Refer to the Configuration Menu: Display Settings->Map Config' section for further information.*

## *PTZ Program Option*

*The Program page allows preset settings for PTZ cameras to be established and an 'Origin' base position established for a camera.*

***Note:*** *This page will only be available for PTZ cameras.*

| | | |
|---|---|---|
| Red | Preset | If Preset positions have been established for the PTZ camera, select the Preset option and enter a preset number. Refer to the 'Presets' menu page for further details on establishing preset positions. |
| Yellow | Patrol | If Patrols have been established for the camera, select the Patrol option and enter a number. Refer to the 'Patrols' menu page for further details on establishing Patrols. |
| Blue | Prog | Opens the 'Dome Menu Option' page. |
| Purple | Next | Opens the next page of the Viewer menu. |



Dedicated Micros ©2010

## *Program Page*

*The Program Menu page allows the PTZ configuration on the currently selected telemetry camera to be accessed and configured.*

| | | |
|---|---|---|
| Red | Dome | Select to display the Dome Menu page. |
| Green | Store | Use to save the current view as a Preset for this camera. Press this button then a preset position (using the numeric keys on the IR Remote Control or optional Keyboard if viewing via a local monitor).<br>To re-send the camera to this position, select the camera, then press Next -> Preset -> (preset number). |

***Note:*** *When entering a new preset, any previous preset assigned to that number (for the same camera) will be overwritten.*

| | | |
|---|---|---|
| Yellow | Select | This option will send the camera to the stored 'Preset1' position. |
| Blue | Set Origin | The Origin option allows a base position to be established for the Oracle dome camera. The camera will register this position as zero degrees. Any command that sends the camera to a coordinate will use this origin as its starting point.. |

***Note:*** *This option is only available for Oracle dome cameras.*

| | | |
|---|---|---|
| Purple | Back | Return to the 'PTZ Program Option' page. |

Dedicated Micros ©2010

## *Dome Menu Option*

*The Dome Menu page allows camera specific menus imbedded on the currently viewed Telemetry camera to be accessed and configured.*

| | | |
|---|---|---|
| Red | Dome Menu | Select to view camera specific sub-menus embedded on the Telemetry camera (if applicable). The camera specific menus will be overlaid across the screen. |
| Green | Select | This option enables sub-menu content selection (dependent on the protocol selected). Please refer to the specific camera documentation for further guidance. |
| Yellow | Return | This option enabes sub-menus to be exited (dependent on the protocol selected). Please refer to the specific camera documentation for further guidance. |
| Blue | Menu Exit | This option will fully exit any embedded camera sub-menus currently being viewed. |
| Purple | Back | Return to the previous page of the Viewer menu. |



Dedicated Micros ©2010

## *Timeline Navigation*

*The Timeline Navigation page and the accompanying Video Timeline feature allows quick and easy investigation of recorded video data. The Goto button opens the initial Timeline Navigation page.*

Softkeys

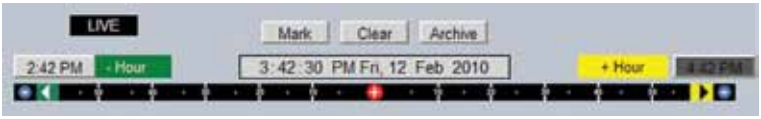
The coloured softkey options will change depending on the scale used to review the recorded images. In the above example:

- Selecting the 15 Mins (Red) button will change the softkey options to 15 minute segments i.e. the user can progress 15 mins from/prior the current playback time.
- Selecting the -Hour button (Green) will progress the video to a point exactly one hour prior to the time shown in the date/time display.
- Selecting the +Hour button (Yellow) will progress the video to a point exactly one hour in advance of the ime shown in the date/time display.
- Selecting the 4Hrs (Blue) button will change the softkey options to four hour segments i.e. the user can progress four hours from/prior the current playback time.
- Selecting the Exit (Purple) button will always exit the Timeline Navigation menu.

***Note:*** *Depending on the scale used to review the video i.e. Seconds, Minutes, Hours, or Days; the above softkey options will differ, however the same intuitive principles remain.*

## *Video Timeline*

*The Video Timeline allows intuitive, rapid navigation within recorded video. To aid navigation, the timeline can be set to display periods ranging from 15 seconds to four weeks. The timeline can be clicked anywhere in the scale to instantly play recorded images from that point.*




Date/Time Display (Grey) — Shows the currently selected date/time.

***Note:*** *The Date/Time Display shows the last time selected via the timeline. During playback, the Date/Time Display remains static while the 'running' time is shown in the bottom left corner of the playback image.*

Timeline


The timeline allows navigation from the time and date currently shown in the Date/Time Display window. The scale changes to correspond to the time period chosen for investigation i.e. if a scale of one hour is selected it will be possible to move up to one hour prior, or one hour in advance of the displayed time (unless that selected time has not been recorded yet). For example, with a scale of one hour, click '10' on the left side of the timeline to play video from 10 minutes prior to the Date/Time Display. To advance in time, click on the right side of the timeline.

**Time Scale Options**

- 15 seconds
- 1 minute
- 15 minutes
- 1 hour
- 4 hours
- 1 day
- 1 week
- 4 week


Dedicated Micros ©2010

## *Change Scale*

*Utilise the buttons shown below to change the scale.*

***Note:*** *The coloured softkey buttons can also be used to alter the scale, refer to "Softkey Guidance" for further details).*

| | | |
|---|---|---|
| Decrease Scale button (Red) | | Decreases the scale of the displayed timeline by one step i.e. if the scale is currently one hour, selecting this button will reduce it to 15 minutes, selecting it again will reduce it to one minute etc. |
| Increase Scale button (Blue) | | Increases the scale of the timeline by one step i.e. if the scale is currently one hour, selecting this button will increase it to four hours, selecting it again will increase it to one day etc. |
| Left Navigation Arrow (Green) | | Selecting the left navigation arrow will play recorded images from the maximum prior time available via the current timeline i.e. if a one hour time scale is displayed, selecting the Left Navigation Arrow will play video from one hour prior. This can also be selected via the Green softkey button. |
| Right Navigation Arrow (Yellow) | | Selecting the right navigation arrow will play recorded images from the maximum future time available via the current timeline i.e. if a one hour time scale is displayed, selecting the Right Navigation Arrow will play video from one hour in advance. This can also be selected via the Yellow softkey button. |

## *Event List*

*Alarms and activity detection, plus system Events i.e. camera fails, are tagged and stored in the Event List. Each Event is labelled with an event type (alarm, activity or system) and its time and date. To view any additional pages of Event data, use the Yellow/Blue Softkeys. If viewing locally, use the Up/Down Directional buttons to select a specific Event, press the OK button to display the full list. When viewing remotely, selecting any Event with the mouse will display the full Event list. If viewing locally, press PLAY on the IR Remote Control/Keyboard to playback an event. If viewing remotely, highlight a chosen event with the mouse to playback.*

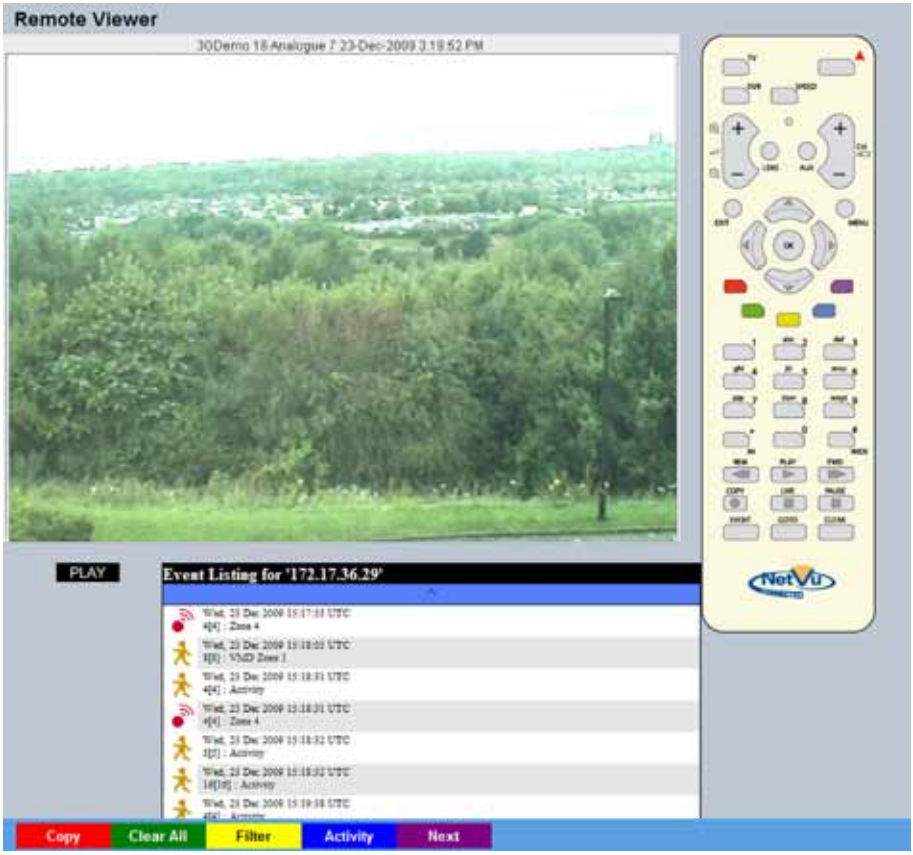
| | | |
|---|---|---|
| Red | Play | Select to playback the highlighted event. |
| Green | Live | Select to view live images from the currently selected camera. |
| Yellow | Page - | Select to display the previous page of Event data. |
| Blue | Page + | Select to display the next page of Event data. |
| Purple | Next | Select to open the Event Copy and Search menu. |



Dedicated Micros ©2010

## *Event Copy and Search Menu*

The Event Copy and Search menu allows events to be sent to the Copy menu via the Copy Option. All events currently held within the 'Copy' menu can be deleted via the 'Clear All' option. The 'Filter option' allows access to the 'Filter Search' menu.



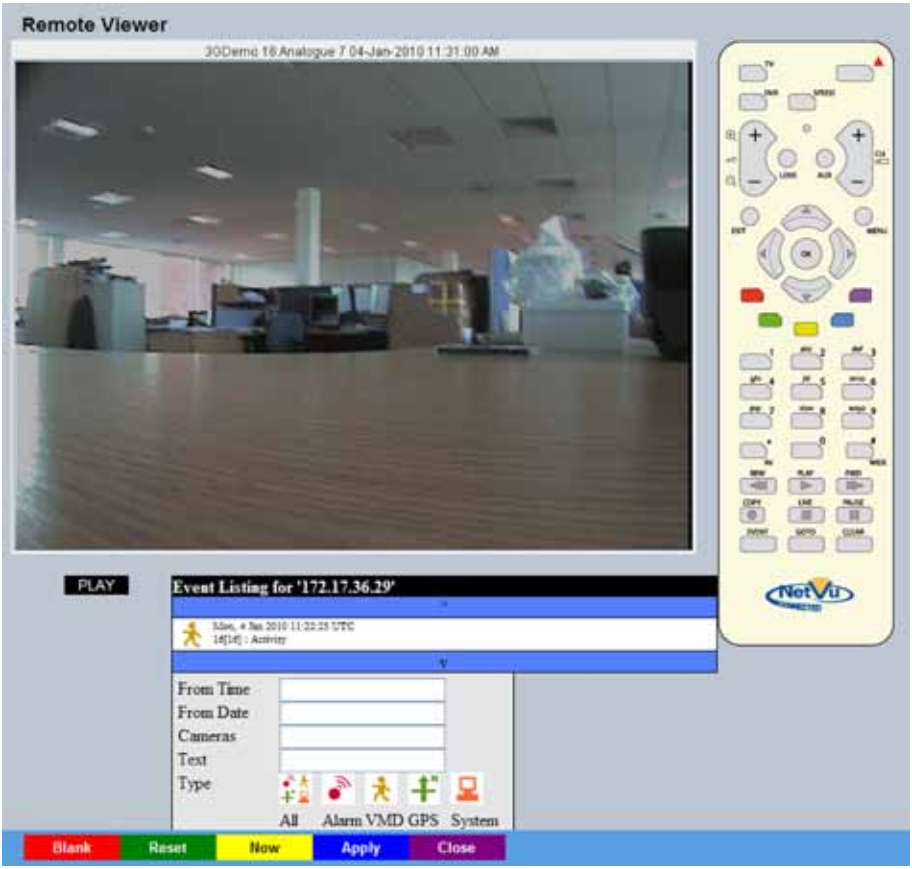

| | | |
|---|---|---|
| Red | Copy | Select to add the currently highlighted event to the Copy menu. |
| Green | Clear All | Select to clear ALL events from the copy menu. |

***Note:*** *Single events can be deleted via the Copy menu.*

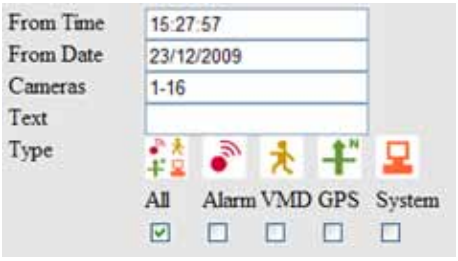
| | | |
|---|---|---|
| Yellow | Filter | Select to display the Filter Search menu, *refer to; Operating The Viewer->Filter Search for further guidance.* |
| Blue | Activity | Select to open the Activity Search menu, *refer to; Operating The Viewer->Activity Search for further guidance.* |
| Purple | Next | Opens the Play menu for the currently selected camera. |

## *Filter Search Menu*

When searching a large number of stored events, the Filter Search menu allows events to be filtered by time, camera channel and category.




Filter Search Box



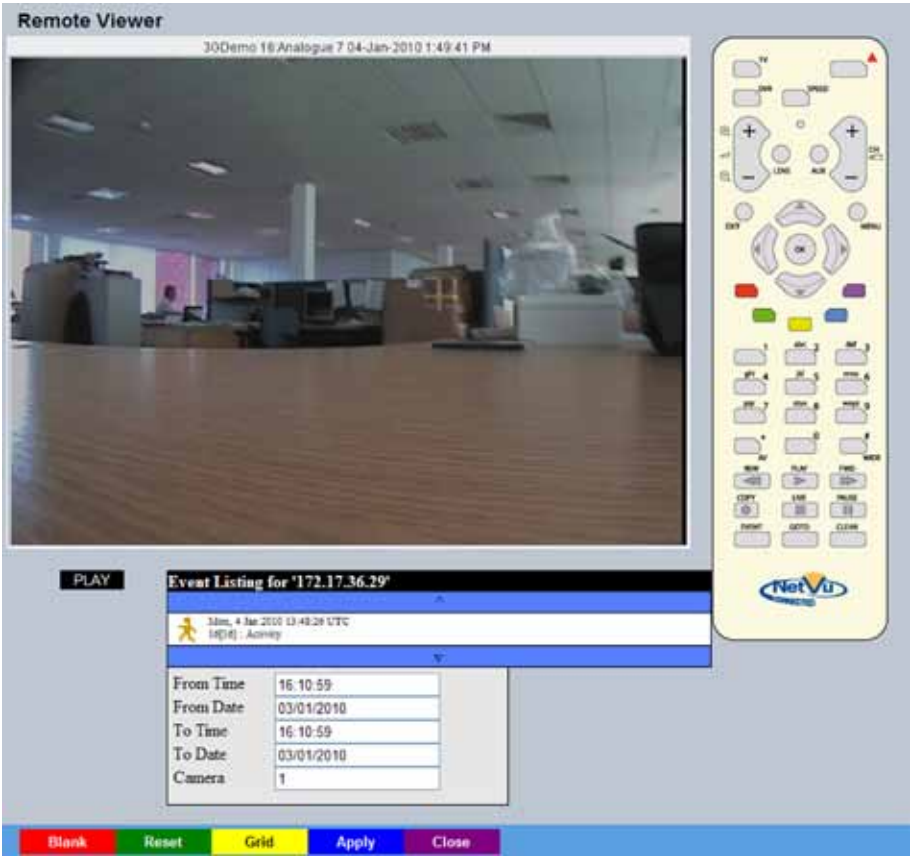

| | |
|---|---|
| From Time | Select a start time for the Event filter. Events prior to this time will be ignored. |
| From Date | Select a start date for the Event filter. Events prior to this date will be ignored. |


Dedicated Micros ©2010

| | | |
|---|---|---|
| | Cameras | Select which cameras are to be included within the Event search. A range of cameras can be selected by entering a hyphen between the first and last required camera i.e.1-8. A selection of individual cameras can be chosen by entering a comma between each camera i.e. 1,3,5,8. Events captured by other cameras will be ignored. |
| | Text | If searching for text in image events, enter the required text here. |
| | Type | The event search can be filtered to include all, or specific event types only. The event types are: Alarm, VMD, GPS and System. Each type is assigned a specific symbol, these symbols accompany each listed event for easy recognition. |
| Red | Blank | Select to remove all data currently displayed in the Filter Search Box. |
| Green | Reset | Select to reset the Filter Search box. The current Time/Date will be displayed plus all available cameras. |
| Yellow | Now | Select to enter the current Time/Date. Any additional displayed search criteria will remain. |
| Blue | Apply | Select to apply any changes made to the Filter Search box. |
| Purple | Close | Select to return to the Event Copy and Search menu. |

## *Activity Search Menu*

*The Activity Search menu allows the search criteria to be further narrowed to only include events which have occured within specific segments of the camera view. Firstly, enter a start/end Time and Date, then select a camera channel. Use the Grid option to select a specific segment of the camera view.*



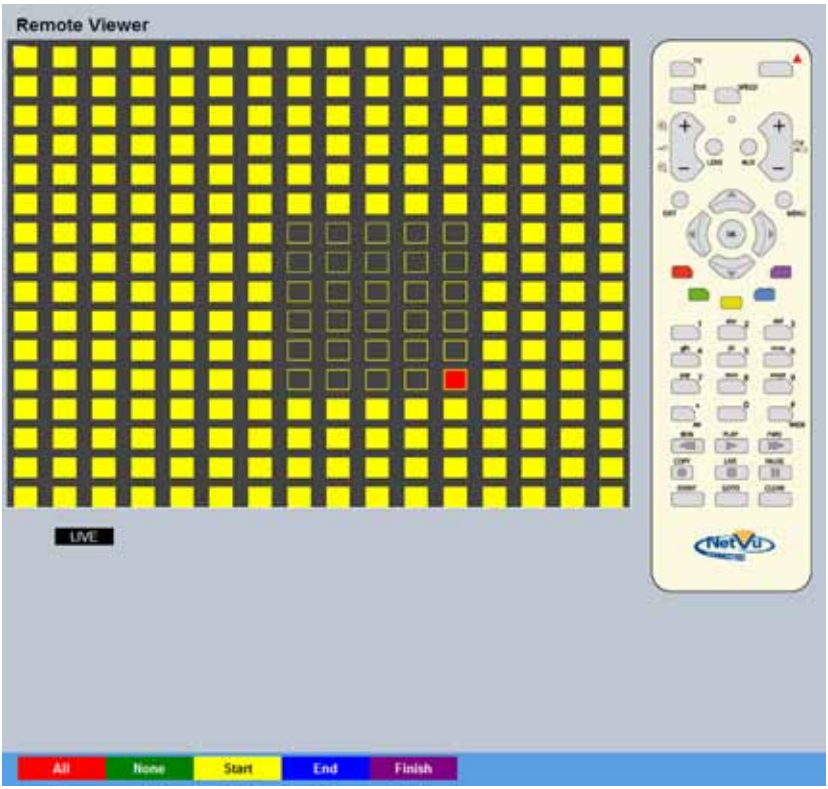

| | |
|---|---|
| From Time | Select a start time for the Activity filter. Events prior to this time will be ignored. |
| From Date | Select a start date for the Activity filter. Events prior to this date will be ignored. |
| To Time | Select an end time for the Activity filter. Events after this time will be ignored. |
| To Date | Select a end date for the Activity filter. Events after this date will be ignored |
| Cameras | Select which camera to include within the Activity search. A range of cameras can be selected by entering a hyphen between the first and last required camera i.e.1-8. A selection of individual cameras can be chosen by entering a comma between each camera i.e. 1,3,5,8. Events captured by other cameras will be ignored. |


Dedicated Micros ©2010

| | | |
|---|---|---|
| Red | Blank | Select to remove all data currently displayed in the Filter Search Box. |
| Green | Reset | Select to reset the Filter Search box. The current Time/Date will be displayed plus all available cameras. |
| Yellow | Grid | Select to open the Grid menu. |
| Blue | Apply | Select to apply any change made to the Filter Search box. |
| Purple | Close | Select to return to the Event Copy and Search menu. |

## *Activity Grid Menu*

*The Activity Grid menu allows the event search criteria to be further narrowed to only display events which have occured within a segment of the camera view. A grid will be displayed across the image of the selected camera channel. Using the options outlined below, the grid can be configured to create activity zones within the image. Only events which have occured wthin these zones will then be displayed in the Activity Search menu for the chosen camera channel.*




| | | |
|---|---|---|
| Red | All | This option will display a default rectangle of 18x16 cells across the video image. |
| Green | None | This option will delete all cells from the displayed video image. |
| Yellow | Start | Highlight a cell using the Directional buttons on the IR Remote Control (if viewing remotely) and select Start (Yellow). This will mark the start point of the area NOT to be included in the activity zone. |
| Blue | End | Highlight a cell using the Directional buttons on the IR Remote Control (if viewing remotely) and select End (Blue). This will mark the end point of the area NOT to be included in the activity zone. |


Dedicated Micros ©2010

If viewing remotely, a zone can be created directly via the mouse. Simply click on a cell and then on a separate cell. An area NOT to be included in the Activity zone will be created linking these points.

***IMPORTANT:*** *The area (cells) highlighted yellow constitutes the activity detection zone. Any activity events occuring within the area created using the Start and and End points will be ignored.*

***Note:*** *Multiple zones can be created within the same camera view.*

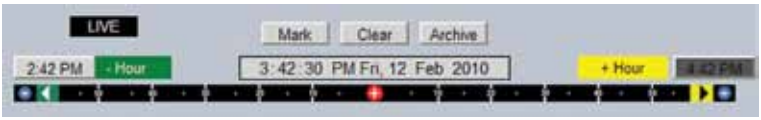
| | | |
|---|---|---|
| Purple | Finish | Select to return to the Activity Search menu. |

## *Archive Selection*

*Images and events can be marked and added to the Copy menu. Archive selection can be undertaken either from a local monitor or remotely via the webpages.*

*For ease of use, video can be marked for archive in a number of ways:*

**Selecting Video for Archiving Via The Video Timeline**




Access the Video Timeline menu via the GoTo option.

Using the Timeline, navigate to the required start point of the footage you wish to archive.

Select the ‘Mark’ button.

When the footage reaches the end point you wish the archive to stop, select the ‘Mark’ button again.

This marked footage will now be added to the Copy menu for download purposes.

The Copy menu can be accessed directly via the ‘Archive’ button.

Any marked start point can be deleted via the ‘Clear’ button.



Dedicated Micros ©2010

**Selecting Video For Archiving Via The Archive option / Copy Event List**

*When viewing the footage intended for download, enter a start and end point for archive purposes via the Mark (Red) button. The Copy Event List will be displayed detailing each added archive (based on the marked start and end point). Up to eight archive events can be added to the Copy Event List.*

*All video listed within the Copy Event List will also be automatically added to the Copy menu. Use the Archive (Yellow) button to access the Copy menu.*

| Copy Event List | | | |
|---|---|---|---|
| 1: | 1 Aug 2008 10:10:22 | -> | 1 Aug 2008 10:14:57 |
| 2: | --- | -> | --- |
| 3: | --- | -> | --- |
| 4: | --- | -> | --- |
| 5: | --- | -> | --- |
| 6: | --- | -> | --- |
| 7: | --- | -> | --- |
| 8: | --- | -> | --- |

| | | |
|---|---|---|
| Red | Mark | In Playback mode, select ‘Mark’ to establish a start point for archiving purpose. The Copy Event List box will be displayed (see above) detailing the start date and time of the archive. Select ‘Mark’ again to establish an end time for the archive. A maximum of eight copy periods can be added to the Copy Event List. |
| Green | Clear | In Playback mode, select Clear to remove the last start or end mark added to the Copy Event List. |
| Yellow | Archive | Opens the Copy Menu. |

Dedicated Micros ©2010

| | | |
|---|---|---|
| Blue | Seq On/Off | Select ‘Seq On’ to display images from all connected cameras in a sequential order. |
| Purple | Next | Opens the Play menu for the currently displayed camera. |

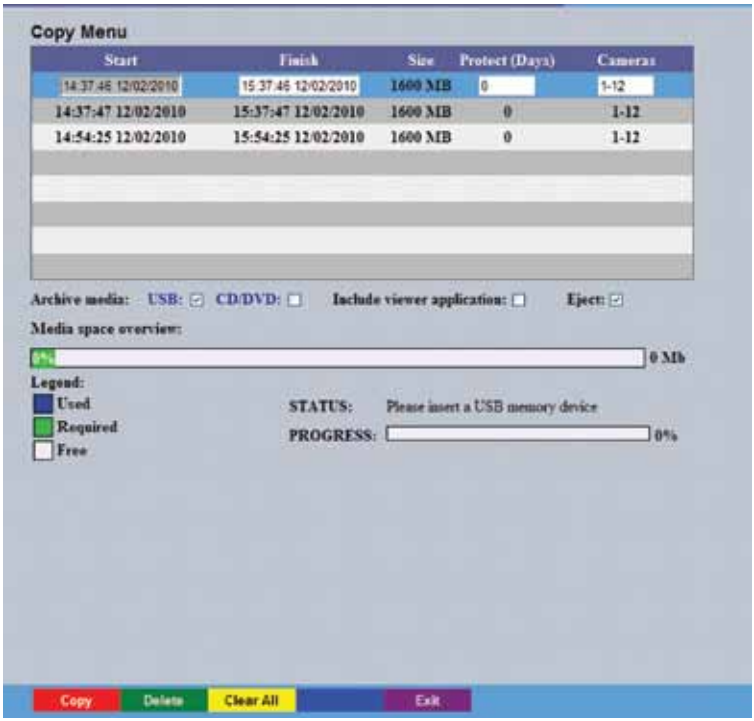


Dedicated Micros ©2010

## Copy Menu

*Images and events can be copied to CD-R/DVD-R or USB Media for remote reviewing away from the unit (for evidential or monitoring purposes). The Copy Menu can be accessed via the 'Archive' (Yellow) button on the Archive Selection page.*

*Start and End points for video marked for download can also be added and edited directly within the Copy Menu.*




The Copy menu will display all video images marked for archiving. The Start and Finish date/times will be shown along with the estimated size of the download, the period the images are protected for, and the camera channels to be included in the download.

To Edit an archive within the Copy menu, click on it directly (use the left mouse button when viewing remotely).

The textboxes within the 'Start', 'Finish', 'Protect (Days)' and 'Cameras' fields can be edited as required.

Selecting a blank Archive line will allow direct entry of data i.e. start/end time and date, protection period and the camera channels to be included in the Archive.

| | |
|---|---|
| Archive Media | Select the media device (USB or CD-R/DVD-R) for archive purposes. |
| Include Viewer Application | Select whether the application required to view archived data is included in the download. |

| | |
|---|---|
| Used (Blue) | Displays the space (as a percentage) already used on the chosen media device. |
| Required (Green) | Displays the space (as a percentage) required to download the selected archive(s). |
| Free (White) | Displays the space (as a percentage) that will remain following the download. |
| Status | Displays messages relevant to the archive process i.e. 'Archive In Progress'. |
| Progress | Displays the progress of the current archive (as a percentage of completion). |

| | | |
|---|---|---|
| Red | Copy | Select to begin the download process. |
| Green | Delete | Select to delete the highlighted archive only. |
| Yellow | Clear All | Select to delete ALL archives currently displayed in the Copy menu. |
| Purple | Exit | Select to exit the Copy menu. |

***Note:*** *You can navigate away from the Copy menu and the archive procedure will continue*

**To Copy Events/Images to a USB Device**

1. Insert a USB Device into the USB port on the front of the unit.
2. Select USB from the Archive Media checkbox.
3. Select the Copy option (Red) to start archive.
4. Selected items are then saved to the USB device.
5. The USB export progress is displayed as a %. On completion the status will read 'Archive Complete'.

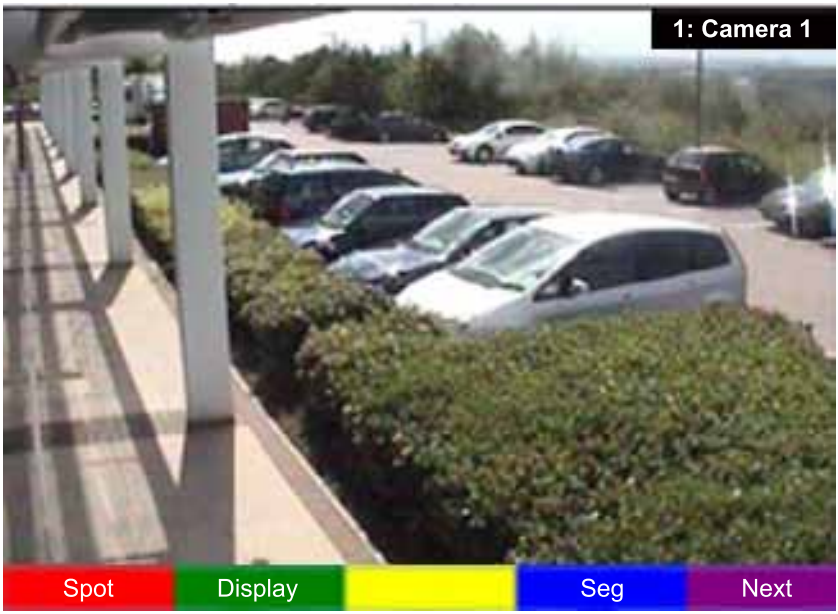
**To Copy Events/Images to a CD-R/DVD-R**

1. Insert a -RW CD-R/DVD-Rinto the CD/DVD drive on the front of the unit.
2. Select CD/DVD from the Archive Media checkbox.
3. Select the Copy option (Red) to start archive.
4. Selected items are then saved to the CD-R/DVD-R.
5. The CD/DVD export status is displayed as a %. On completion the status will read 'Archive Complete'.


Dedicated Micros ©2010

## *Spot Monitor / On-Screen Display (Local Monitor Only)*

*This menu (only accessible via a local monitor) allows configuration of the camera output displayed on the spot monitor, plus enables all on-screen display text to be removed from the main monitor display*




| | | |
|---|---|---|
| Red | Spot | Select to change the camera currently displayed on the spot monitor. When selected, use the IR Remote Control, Front Panel Interface or optional Keyboard to cycle through available cameras. As different cameras are selected, they will be displayed on the spot monitor only and not on the main monitor. The text 'Spot' will be displayed in the lower left segment of the main monitor. |
| Green | Display | Select to remove the on-screen text displayed on the main monitor. |
| Blue | Seg | Select to custom configure a quad or multiscreen display. First ensure the viewer is displaying in Quad or Multiscreen format, then select 'Seg'. The camera view in the top left segment will be highlighted. Select a camera channel via the IR Remote Control, Front Panel Interface or optional Keyboard. When your chosen camera is displayed, select 'OK'. The next camera segment will then be highlighted and ready to be assigned a camera. Select 'Seg' to exit when all segments have been assigned a camera channel. When accessing Quad or Multiscreen display, the custom display config will now be displayed. |
| Purple | Next | Opens the next page of the Viewer menus. |

Dedicated Micros ©2010

## *Help Videos*

*The Help Videos offer step by step guidance on performing some of the most common tasks required of the unit. Access the Video Help menu by selecting the Help (yellow) option on the View Menu. The Help videos are divided into six categories; each category containing relevant videos. To play a video, first click directly on one of the six categories. If viewing remotely, use the Directional buttons and the OK button. A connected USB mouse can also be used. When a category is chosen, all associated videos will be listed. Select a video to play.*

***Note:*** *A speaker must be connected to the Audio OUT connection to hear the associated audio commentary.*

| | | |
|---|---|---|
| Purple | Back | Return to the 'View Menu' page. |



Dedicated Micros ©2010

# Using the optional Keyboards (DM/KBC1 & DM/KBC2)

*The unit can also be controlled using an optional Dedicated Micros keyboard. This is connected via the KBD connector on the rear of the unit and provides the same control functions as the I.R Remote Control. The following keyboards are supported:*

## *DM/KBC1 Keyboard*

## *DM/KBC2 Keyboard*

***Note:*** *Not all buttons detailed below are relevant for both models of keyboard.*

| Key | Function |
|---|---|
| | Displays the Softkeys menu if not currently on screen.<br>Selects the colour coded item displayed on screen. |
| | Switches from Playback to Live mode. |
| | Toggles the visibility of on-screen text and status bar if no Softkeys are on screen. (For future use). |
| | For future use. |
| | Displays the Softkey options for the Audio functions (for future use). |
| | Forces all the cameras to record in alarm mode for three minutes, or until the button is pressed again (for future use). |
| | Play mode - Marks start and end of archiving point.<br>Live mode - Opens the Archive Copy menu. |
| | Live mode - No functionality.<br>Play mode - Starts fast forwarding from play time.<br>Rewind mode - Starts fast forwarding from play time.<br>Pause mode - Steps forward one frame. |
| | Live mode - Puts unit into reverse playback from current time.<br>Play mode - Starts rewinding from play time.<br>Rewind mode - Increases the rewind speed.<br>Pause mode - Steps back one frame. |
| | Live mode - Freezes the current display window<br>Play mode - Pauses video in playback. |
| | Live mode - puts the unit into playback using the last stored playback time |
| | Displays the Events list menu. |



Dedicated Micros ©2010

Opens the GOTO menu

For future use.

Toggles control from Main to Spot monitor.

Allows the numeric selection of a camera (numeric selection defaults to camera selection).

Allows entry of camera and Preset and numbers.

For future use.

For future use.

Triggers the wash function on a telemetry camera.

Triggers the wipe function on a telemetry camera.

Switches on the lamp on a telemetry camera.

Adjusts the focus to objects nearer the camera.

Adjusts the focus to objects further from the camera.

Closes the Iris on a Telemetry camera.

Dedicated Micros ©2010

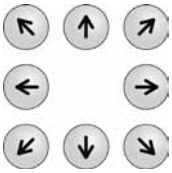
Opens the Iris on a Telemetry camera.

Zooms in on a telemetry camera and also provides electronic zoom out.

Zooms out on a telemetry camera and also provides electronic zoom in.

Sends a Patrol command to a telemetry camera.

Instructs the selected telemetry camera to automatically pan (on cameras that support this function).



Used as menu and on-screen navigation keys.
Pan and tilt control for telemetry cameras.

In Play mode: Used to Mark Start/End positions.

In Live mode: Displays the Copy List and archive controls.

Exits menus.



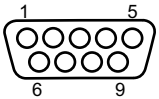
Dedicated Micros ©2010

# Appendix A

## Alarm & Relay Pin Outs

**Using Serial Ports**

*It is possible to connect a variety of telemetry cameras to the unit, using the following table as a guide to the serial port connections.*




**RS485 Connectivity (2 wire) (Serial 3, 4)**

| Pin | Description |
|---|---|
| 1 | RS485 + (A) |
| 9 | RS485 - (B) |
| 5 | Shield (GND) |

**RS232 Connectivity (Serial 1, 2)**

| Pin | Description | Desc |
|---|---|---|
| 1 | Data Carrier Detect | DCD |
| 2 | Receive Data | RX |
| 3 | Transmit Data | TX |
| 4 | Data Terminal Ready | DTR |
| 5 | Ground | GND |
| 6 | Data Set Ready | DSR |
| 7 | Ready to Send | RTS |
| 8 | Clear to Send | CTS |
| 9 | Ring Indicate | RI |

**RS232 Connectivity (Serial 3, 4)**

| Pin | Description | Desc |
|---|---|---|
| 2 | Receive Data | RX |
| 3 | Transmit Data | TX |
| 5 | Ground | GND |
| 7 | Ready to Send | RTS |
| 8 | Clear to Send | CTS |



Dedicated Micros ©2010

# Appendix B

## Using the Keyboard/RC Interface Control To Control A Common Television Set

*To use the Keyboard/RC Interface Control as a common television remote handset, it is necessary to input a code specific to the relevant television. Below are detailed the procedures to follow and a listing of the codes associated with common television brands.*

### How to Program The SD Advanced IR Remote Control

1. Turn the TV you wish to control ON.
2. Press and hold the TV button on the Keyboard/RC Interface.
3. Press and hold the PANIC button until the LED on the Keyboard/RC Interface Control turns ON.
4. Release both buttons, the LED will stay ON.
5. Press and release the PLAY button.
6. Enter the required code (see list below and overleaf). Please note that up to 10 codes can be entered at any one time. For many makes of television it will be necessary to try several codes before the user is able to pinpoint the relevant one for the TV model.
7. Press PLAY. The IR Remote Control will search the stored codes. Note that if more than one code has been entered, it will be necessary to press the REV button to cycle individually through the stored codes. To view which code has successfully accessed the TV, simply note when the TV turns OFF.
8. Press STOP. The LED turns OFF and the code is stored.

### Codes Relevant To Common Televisions.

| TV Brand | Code(s) |
|---|---|
| Alba | 2003/2009/2010/2021/2022/2041/2045/2052/2093/2255/2278/2293/2306/2492/2497/2498/2521/2527/2541/2545/2564/2605/2609/2614/2618/2622/2631/2633/2636 |
| Amstrad | 2002/2009/2010/2012/2024/2045/2492/2498/2515/2515/2515/2521/2540/2605/2609/2610/2618/2621/2633 |
| Baird | 2068/2081/2504/2517/2518/2618 |
| Bang & Olufsen | 2000 |
| Bauer | 2617 |
| Beko | 2007/2027/2052/2180/2191/2228/2242/2269/2498/2588/2589/2616/2637 |
| Binatone | 2003 |
| Blaukpunkt | 2008/2079/2519/2625 /2636 |
| Brandt | 2029/2033/2034/2075/2076/2081/2117/2174/2272/2332/2535/2536 |
| Brother | 2610 |
| Daewoo | 2003/2009/2037/2039/2060/2070/2105/2128/2148/2224/2492/2498/2521/2551/2565/2566/2570/2592/2605/2609/2633/2636 |
| Ferguson | 2028/2029/2036/2038/2050/2068/2076/2089/2093/2143/2173/2517/2518/2536/2560/2618/2619/2620/2625/2627/2637 |
| Goldline | 2498 |
| Goldstar | 2003/2009/2011/2037/2053/2059/2077/2093/2094/2492/2498/2527/2542/2605/2608/2616/2624/2629/2632/2636/2637 |
| Goodmans | 2002/2004/2009/2021/2022/2037/2045/2059/2068/2070/2076/2093/2259/2369/2492/2496/2497/2498/2504/2516/2548/2551/2554 2605/2609/2610/2614/ 2633/2635/2636 |
| Hitachi | 2003/2004/2014/2017/2021/2026/2031/2033/2034/2035/2054/2081/2082/2083/2169/2175/2199/2201/2202/ 2253/2260/2380/2385/2396/2414/2426/2427/2441/2448 /2450/2469/2470/2471/2472/2497/2498/2499/2500/2504/2509/2512/2522/2524/2549/2551/2575/579/608/620/627/629/636 |



Dedicated Micros ©2010

| | |
|---|---|
| JVC | 2021/2037/2045/2050/2210/2216/2239/2240/2267/2276/2280/2282/2298/2333/2377/2397/2497/2502/2507/ 2517/2518/2521/ 2557/2563/ 2572/2577/2597/2609/2615/2616/2622/2636/2646 |
| LG | 2003/2009/2011/2037/2053 /2055/2059/2077/2084/2093/2094/2195/2200/2237 /2245/2261/2262/2263/2274/2287/2312/2330/2355/2356/2359/2364/2381/2389 /2451/2452/2492/2498/2527/2542/2580/2581/2582/2594/2596/2598/2600/2605/ 2608/2616/2645/2647/649 |
| Panasonic | 2042/2043/2044/2063/2074/2085/2086/2100/2107/2114/2123/2130/2134/2136/2138/2168/2187/2226/2252/2324/2357/2361/2388/2408/2415/2416/2428/2429/2473/2474/2475/2498/2511/2520/2523/2528/2562/2578/2585/2599/ 2601/2603/2620/2636/640/ 648 |
| Philips | 2000/2003/2031/2032/2037/2055/2056/2068/2070/2087/2093/2108/2109/2112/2115/2119/2122/2126/2129/2131/2132/2133/2141/2146/2147/2149/2150 2152/2154/2155/2157/2163/2170/2182/2183/2190/2192/2197/2206/2214/2215/2229/2231/2246/2248 2249/251/254/257/264/275/277/283/291/297/323 /338/339/343 /383/384/393/398/436/453/454/476/477/478/479/480/481/495/498/499/554/567/568573/604/623/624 /627/629/ 635 /636/637/643/644 |
| Pioneer | 2029/2037/2081 /2093/2379/2382/2387/2390/2392/2444/2449/2498/2584/2627/26 /2637 |
| Sanyo | 2003/2004/2006/2014/2016/2021/2023/2024/2025/2030/2032/2076/2088/2161/2220/2223/2290/2292/2401/2442/2443/2492/2494/2497/2501/2504/2513/2532/2605/ 2627/2629/2633 |
| Sharp | 2001/2005/2023/2040/2101/2102/2127/2139/2160/2162/2186/2193/2207/2219/2335/2352/2354/2360/2365/2366/2368/2372/2373/2376/2403/2407/2417/2422/2423 /2424/2430/2431/2432/2433/2434/2455/2456/2457/2458/2459/2460/2461/2462/2463/2483/497/502/506/513/533 |
| Sony | 2004/2009/2021/2023/2024/2047/2067/2076/2078/2091/2097/2098/2110/2111/2118/2121/2125/2135 /2142/2166/2177/2185/2204/2234/2236/2326/2344 /2345/2346/2349/2363/ 2400/2402/2404/2405/2410 /2413/2418/2420/2439//2493/ 2494/2497/2508 /2569/2571/587/602/603/607/639 |
| Technics | 2043 |
| Toshiba | 2015/2021/2051 /2069/2090/2103/2137/2158/2159/2165/2179/2188/2194 /2208/2211/2213/2217 /2218/2222/2243/2244/2250/2271/2284/2288/2294 /2303 /2304/2313/2318/2319/2320/2321/2322/2328/2347/2350/2370/2375/2394/2409/2421/2435/2437/2440/2465/466/467/485/487/489/490/496/497/503/508 /526/574/54/ 591/595/606/607/632/642 |

# Appendix C

## User Activity Logging

User Activity logging can be enabled or disabled via the System Setting->Features menu. When this feature is enabled, the unit will record all actions performed via the user interface. These actions include Viewing the live stream, activating telemetry, altering the unit configuration, viewing recorded video, archiving video and any system events such as restarting the unit.

Data recorded will include the user name, login time and date, what action was performed, which channels were viewed and which telemetry instructions were issued.

The log files will be retained on the unit for as long as any related video files are kept. One log file will be created daily as a text file and will be named automatically (using the date of creation), and stored in the logs directory on the unit. This can then be downloaded via ftp if required.

| Action | Stored Data |
|---|---|
| User Login | Username, Local or Remote, Login |
| Local Archive | Username, Local or Remote control, Media |
| Remote Raw Archive 1 | http Username, Submission requesting archive time |
| Remote Selective Archive | http Username, Submission requesting archive time |
| Remote Raw Archive 2 | FTP Username, List of downloaded files |
| Telemetry | IP address of user, Local or Remote, Channel Controlled, Command sent |
| Configuration | Username, Local or remote, Menus changed, Items changed |
| Playback | Username, Remote, Channel viewed, From time |
| Live | Username, Remote, Channel viewed |
| System Events | Username, Event Info |



Dedicated Micros ©2010

# Appendix D

## Locating the unit IP address using the serial port

*For guidance on locating the unit's IP address via a serial port connection, please see below:*

1. With the mains power off, connect a standard 9DF-9DF RS232 communications cable from the PC to one of the serial port connections on the rear of the unit.
2. On the PC, click Start->Programs->Accessories->Communications->Hyperterminal and create a new connection via the COM port using these settings.

| | |
|---|---|
| Bits per second | 115200 |
| Data Bits | 8 |
| Parity | None |
| Stop bits | 1 |
| Flow Control | None |

3. Power the unit, the Power LED on the unit will illuminate.
4. Hyperterminal will display the communications information as the unit boots up. This will include the IP address, Subnet and Gateway.

# Appendix E

## Configuring Your PC for the Videolan VLC Player

*The Multicast page allows recordings from the unit's camera input to be forwarded to a port address. To utilise the Multicasting function (refer to Configuration Menu: Network Settings->Multicast SetUp for guidance).*

*This system has been validated using the 'Videolan VLC media player for MS Windows. The Videolan VLC media player can be downloaded free of charge from:*

*www.videolan.org/vlc/download-windows.html*

***Note:*** *Mulitcast can only used for live viewing, requests for stored images and events will still need to be made via the Viewer menu.*

### *To configure your PC to utilise VLC*

**Version 1.0.5 ¶**

* Select Media | Services Discovery | SAP announcements
* Select View | playlist | SAP Announcements

*All video servers with multicast enabled should then appear in the playlist window. Double click a server to start streaming data from it.*

**Version 0.8.6 ¶**

* In VLC select Playlist -> Manage -> Services Discovery -> SAP Announcements
* Wait for the server to appear under "Session Announcements (SAP)" in the Playlist window.
* Click on one of the items advertised by the server.

*The server broadcasts SAP announcements periodically, the packets contain SDP entries which describe the stream contents for each multicast enabled camera. VLC listens for SAP announcements and adds them to the playlist.*



Dedicated Micros ©2010

# Appendix F

## Locating and Changing Username/Password Details for Third Party IP Cameras via an FTP Connection

*For guidance on locating and changing a third party IP camera's username and password via an FTP connection; please see below:*

Firstly use your chosen File Transfer Protocol (FTP) client to connect to the unit.

Refer to your FTP client's supporting documentation for guidance on how to connect to the SD Advanced.

Note that the URL of the unit will be required before a connection can be made.

By default, no username/password is required for an FTP connection.If they have been assigned however, these must be entered before access will be allowed.

FTP access username/passwords can be configured via the 'Admin FTP' option displayed in the 'User Accounts' menu (Display menu->User Accounts).

When access to the unit has been granted, navigate to the 'etc' folder.

Within this folder, located the ip_cams.ini file.

This file contains all username/password data for all connected IP cameras.

This file can be viewed or edited.

Refer to your FTP clients supporting documentation for guidance on viewing and editing files. If you have updated the file, ensure it is reloaded to the unit before exiting the FTP client.

# Appendix G

## Unit Specification

**LANGUAGES**

Currently: English, French, Italian, German, Spanish, Russian, Czech, Danish, Finnish, Norwegian, Swedish & Dutch.

**CAMERAS**

8, 16 and 32 camera inputs available. Auto detection on power up. Looping BNC connectors are provided for each camera input on 8 and 16 input models

Option to view Live or Replay all or selected cameras without affecting recording.

**MONITOR VIEWING**

Main monitor:

Full screen, picture in picture, quad viewing and multiscreen.

Mon A: Composite video BNC connector and S-Video.

HDMI Monitor Output

Spot monitor:

Full screen, sequence.

Mon B: Composite video BNC connector.

**ACTIVITY DETECTION**

Each activity detection will switch the selected camera from normal record profile to alarm record profile. This feature can also; log the event, activate a relay, trigger a sounder, switch camera or link to an alarm.

Individual configurable alarm responses include; move camera to preset, activate a relay, remote alarm reporting, email on alarm, log event, switch camera, activate sounder.

**ALARMS & RELAYS**

20 normally open/closed tamper proof alarm inputs via back panel.

Keyswitch input to select set/unset.

4 relay outputs.

**AUDIO**

The user has the option to record and play back audio through the unit. Recorded with images, audio can be played back directly from the unit via powered external speakers.

Audio output for on site PA/Challenge.

Connections:

Line in: 1V pk-pk, RCA phono socket.

Line out: 1V pk-pk, RCA phono socket.

**SEARCH AND PLAYBACK**

- Frame advance/rewind, fast picture search and pause keys.
- Event list, including event list filter with unique quadrant preview facility.
- Video Timeline.
- Playback in quad, multiscreen, picture in picture and full screen.

**Multi*Mode* RECORDING**

**Multi*Mode*** recording gives you the ability to set different record rates, resolutions and compression algorithms (MPEG-4/JPEG) across scheduled, normal and alarm modes dynamically on individual cameras.

**RECORDING FROM**

Playback and record to hard disk simultaneously.

Alarmed or manually selected images can be protected from being overwritten.

Timed expiry option allows images to be held for a selected number of days.



Dedicated Micros ©2010

**EVENT COPYING**

Event sequences and user defined recorded sequences can be saved to a CD-R or DVD-R via the integrated CD-writer / DVD-writer or to an external flash drive through the USB port.

**TEXT SUPPORT**

Through the inclusion of Text Support, the SD Advanced can search captured transaction data for specific goods purchased, transaction numbers, credit card references, keywords etc. and jump straight to the associated video sequence. Till interfaces are available for a wide range of till systems.

**NETWORKING CAPABILITIES**

A standard Ethernet connection allows live and recorded viewing on a networked PC using DM's NetVu ObserVer software. Web pages are available for configuration and live viewing using a standard internet browser.

**I.R REMOTE CONTROL**

Offering full system control.

**OPTIONAL KEYBOARDS**

NetVu Console

Supports Dedicated Micros keyboards:

DMKBC1

DMKBC2

**TELEMETRY**

Built-in RS485/Twisted pair protocols provide direct control of the numerous domes including but not limited to the following:

Coax

- BBV
- BBV RX100
- Pelco Spectra

Serial

- Dedicated Micros Oracle Dome
- AD Matrix/AD 168-Matrix
- BBV RE485 StarCard
- Bosch/Philips G3
- Dennard/Dennard C
- Ernitec
- JVC TK-C675BE, TK-C676 & TK-C553E
- MarkMercer
- Panasonic WV-CS600/WV-CS850
- Pelco C
- Philips/Philips 232
- Samsung SCC-641
- Sensormatic SpeedDome IV & SpeedDome V
- Ultrak Ultradome KD6
- Vista Power Dome

**COLOUR RESOLUTION**

Sampling rate: 13.5 MHz to CCIR 601.

Number of pixels: PAL 704h x 256v 288.

NTSC 704h x 240v.

16.8 million colours 256 levels of grey, 8-bit luma.

**COMPRESSION**

JPEG & MPEG-4, H264 format files.

4CIF, 2CIF, CIF & QCIF resolution.

User definable file size and bit rate.

**SD ADVANCED DATA**

Serial Ports: 4 - 2xRS232 2xRS485

Ethernet: 1x Ethernet RJ-45 10/100 Ethernet connection.

USB: 2 x USB 2.0 Connector.

**TEMPERATURE RANGE**

5 - 40°C

**RELATIVE HUMIDITY**

10% - 85% Non-condensing.

**UNIT DIMENSIONS**

447mm deep, 440mm wide, 89mm high.

Dedicated Micros ©2010

# Index


Accessing the Configuration Webpages ..... 19
Accessing the menus on a local monitor ..... 18
Accessing the menus on a PC web browser ..... 18
Activate New Feature..... 122
Activity Grid Menu..... 160
Activity Search Menu ..... 158
Activity Setup ..... 97
Advanced Record ..... 72
Alarm Input ..... 85
Alarm & Relay Pin Outs ..... 173
Alarms and relays ..... 11
Alarm Settings ..... 84
Alarm Status ..... 30
Analytics & Third Party IP Cameras..... 120
AoE Setup..... 82
Appendix A..... 173
Appendix B..... 174
Appendix C ..... 176
Appendix D ..... 177
Appendix E..... 178
Appendix F..... 179
Appendix G ..... 180
Archive ..... 128
Archive Selection ..... 162
Audio..... 38
Before you start..... 8
Camera Overview ..... 64
Camera Settings ..... 59
Camera Settings ..... 138
Camera Setup..... 60
Change Scale ..... 153
Check the contents of the box ..... 8
Choosing a location for installation ..... 8
Configuring the Unit ..... 18
Copy Menu ..... 165
Data ..... 10
Data ..... 11
Default DNS Address..... 18
Display ..... 52
Display Settings ..... 48
DM/KBC1 Keyboard..... 169
DM/KBC2 Keyboard..... 169
Dome Menu Option..... 150
Electrical Connections ..... 9
Email..... 110
Entering Alpha-Numeric Data via a Local Monitor ..... 25
Event Copy and Search Menu ..... 155
Event List ..... 154
Event Search ..... 141
Event Search Results ..... 142
Event Settings..... 140
Feature Mapping Page ..... 124
Features..... 4
Features ..... 40
Features & Text..... 119
Filter Search Menu..... 156
Firewall..... 118
Front Panel connections ..... 10
FTP Download ..... 116
Global Actions ..... 101
Help Videos..... 168
Holiday & Weekend..... 79
Important Safeguards ..... 6
Installation..... 10
Installing An Advanced Feature License ..... 121
Installing the SD Advanced Unit..... 12
Installing the Unit ..... 8
Introduction ..... 3
IP Camera..... 62
IP Stream Inputs..... 65
JPEG Pre Trigger ..... 74
Keyword ..... 127
Language..... 33
Live Transmissions ..... 106
Locating and Changing Username/Password Details for Third Party IP Cameras via an FTP Connection ..... 179
Locating the Unit IP address..... 18
Main Menu ..... 22
Maintain ..... 45
Map Config..... 54
Map Data ..... 56
Map Options..... 147
Masked Cam Detection..... 92
Mono/Colour Camera..... 60
Multicast Setup ..... 108
Navigating The Configuration Menus..... 23
Network..... 42
Network..... 104
Network Settings..... 103
Oracle Dome Configuration ..... 129
OSD Advanced Settings ..... 137
Other..... 44
Patrols..... 134
Power..... 11
PowerScript Mgmt..... 47
Presets..... 132
Privacy Masks..... 135
Profile Record ..... 69
Program Page..... 149
Protect Video ..... 80
PTZ Program Option..... 148
Quick Overview of SD Advanced Record Settings ..... 9
Record ..... 68
Record Settings ..... 67
Remote Control..... 20
Remote Monitors..... 49
Remote Reporting..... 112
RVRC..... 77
Schedule..... 75
Sectors ..... 133
Selection Page..... 146
Serial Ports ..... 36
Simple Activation..... 92
Software Menu..... 28
Spot Monitor / On-Screen Display (Local Monitor Only) ..... 167
Status..... 130
System..... 27
System..... 40
System Settings..... 26
Text In Image ..... 125




Dedicated Micros ©2010

The Configuration pages can be displayed on a local monitor. ..... 18
Time and Date ..... 34
Timeline Navigation..... 151
To configure your PC to utilise VLC ..... 178
Unit Operation..... 143
Unit Specification ..... 180
Unit Status ..... 29
User Accounts ..... 57
User Activity Logging ..... 176
Using a Supported Dedicated Micros Keyboards (DM/KBC1 & DM/KBC2) ..... 25
Using a USB Mouse or the Webpages ..... 25
Using the Front Panel Interface ..... 24
Using the IR Remote Control ..... 24
Using the Keyboard/RC Interface Control To Control A Common Television Set ..... 174
Video ..... 43
Video Control ..... 145
Video Timeline..... 152
View Control..... 144
Viewer Defaults ..... 50
VMD/Activity Response Setup ..... 95
VMD Configuration..... 99
Web Cam ..... 114
What is Turbo mode? ..... 69
Zone Actions ..... 89
Zone Actions Camera ..... 91
Zone Activation ..... 94
Zone Input ..... 87

Dedicated Micros Ltd.
1200 Daresbury Park, Daresbury,
Cheshire, WA4 4HS, UK

Dedicated Micros France
9-13 rue du Moulinet
75013 Paris, France

Dedicated Micros, Australia PTY.
5/3 Packard Avenue, Castle Hill,
NSW 2154, Australia

Dedicated Micros Slovenia
Delavska cesta 26,
4208 Sencure, Slovenia

Dedicated Micros Benelux
Joseph Chantraineplantsoen 1,
3070 Kortenberg, Belgium

Dedicated Micros Germany
Hamtorstaße 9
41460 Neuss, Germany

Dedicated Micros, Asia PTY
16 New Industrial Road,
#03-03 Hudson Techno Centre,
Singapore 536204

Dedicated Micros Middle East
Building 12, Suite 302,
P.O. Box 500291, Dubai Internet City, Dubai,
United Arab Emirates

Dedicated Micros (Malta) Ltd.
BLB017, Bulebel Industrial Estate,
Zejtun, ZTN3000, Malta

Dedicated Micros USA.
14434 Albemarle Point Place, Suite 100,
Chantilly, Virginia 20151 USA

*Installed by*

MI-I-SDAV-E1-3